

APRIL 30, 2012

TestAmerica - St. Louis

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

## ANALYTICAL REPORT

II12-020

Lot #: F2D120462

SDG #: SL1265

Scot Fitzgerald

CH2M Hill Plateau Remediation

PO Box 1500, MS B6-06

Richland, WA 99352

TESTAMERICA LABORATORIES, INC.



Jayna Awalt  
Project Manager

April 30, 2012

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## CASE NARRATIVE

CH2MHill Plateau Remediation Company  
P.O. Box 1600  
MS B3-60  
Richland, Washington 99352  
April 30, 2012  
Attention: Scot Fitzgerald

TestAmerica Laboratories, Inc.

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SDG	: SL1265
Number of Samples	: 25 samples
Sample Matrix	: Water
Data Deliverable	: Summary
Date SDG Closed	: April 18, 2012

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### II. Introduction

Between April 12, 2012 and April 18, 2012, 25 water samples were received by TestAmerica - St. Louis for chemical analysis. The samples were received within temperature criteria. See the COC and CUR forms for documentation of any variations on receipt conditions and temperature. Upon receipt, the samples were given laboratory Ids to correspond with specific client Ids. Please refer to the Sample Summary sheets attached to this case narrative. This report is incomplete without the narrative.

The following SAFs are associated with this SDG: I12-020, W12-004, I12-016, W12-003

### III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits. All results are based upon samples as they were received, i.e. wet weight, unless otherwise noted on the data sheets. See the attached Methods Summary Form for the methods used in this SDG.

MS/MSD/Dup analysis was done per the client requirements. Analytical batches that did not contain matrix QC were analyzed with a LCS/LCS duplicate.

Deviation from Request: None

### IV. Definitions

QCBLK-	Quality Control Blank, Method Blank
QCLCS-	Quality Control Laboratory Control Sample, Blank Spike
DUP-	Laboratory Duplicate
MS-	Matrix Spike
MSD-	Matrix Spike Duplicate

The term "Detection Limit" used in the analytical data report refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.



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The following data qualifiers may be applicable to the results in this report, as appropriate.

- **B** – For inorganic analyses, the sample result is greater than the MDL but less than the RL.
- **B** – For organic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- **J** – For organic analyses, the sample is estimated and less than the RL.
- **C** – For inorganic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- **D** – For all analyses, the sample result was obtained from the analysis of a dilution.
- **N** – For inorganics and GC analyses, the spike/spike duplicate recoveries are outside QC limits.
- **T** – For GCMS analyses, the spike/spike duplicate recoveries are outside QC limits.

**Volatiles****Batch: 2109084**

The CCV recovery was outside the upper QC limit (greater than 20% D) for Bromomethane indicating a potential high bias for this analyte in the samples associated with this CCV. This analyte was not detected above the reporting limit in the associated samples.

**Affected Samples:**

F2D120462 (1): B2KFW5  
F2D120462 (2): B2KFW6  
F2D130430 (1): B2KFX5  
F2D170439 (1): B2KFF2  
F2D170441 (1): B2K4B7  
F2D170442 (12): B2L247

The MS recovery for Methylene chloride is outside the established QC limits. The RPD value for this analyte is within method acceptance criteria indicating possible matrix interference. Method performance is demonstrated by acceptable LCS recovery. This analyte has been qualified accordingly with a "T" flag in the associated samples.

**Affected Samples:**

F2D120462 (1): B2KFW5  
F2D120462 (2): B2KFW6  
F2D130430 (1): B2KFX5  
F2D170439 (1): B2KFF2  
F2D170441 (1): B2K4B7  
F2D170442 (12): B2L247

The MS/MSD RPD for 1,4-Dioxane is not within method acceptance criteria. MS/MSD recoveries are within QC limits demonstrating good extraction performance in the sample matrix.

**Affected Samples:**

F2D120462 (1): B2KFW5  
F2D120462 (2): B2KFW6  
F2D130430 (1): B2KFX5  
F2D170439 (1): B2KFF2

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F2D170441 (1): B2K4B7

F2D170442 (12): B2L247

The samples were analyzed at a 25x dilution due to high concentrations of Carbon tetrachloride. The reporting limit has been adjusted only for this target reported from the dilution analysis. This analyte has been qualified accordingly with a "D" flag in the associated samples.

**Affected Samples:**

F2D120462 (2): B2KFW6

F2D130430 (1): B2KFX5

**Batch: 2108089**

The MS/MSD RPD for 1,4-Dioxane is not within method acceptance criteria. MS/MSD recoveries are within QC limits demonstrating good extraction performance in the sample matrix.

**Affected Samples:**

F2D120464 (1): B2L245

F2D130428 (1): B2L246

**Semivolatiles****Batch: 2109120**

Two liters were received for this sample. Three liters is the method suggested volume for sample, MS and MSD. Lab practice is to retain volume in case a QC failure requires a re-extraction. LCS/LCSD was performed to demonstrate accuracy and replicate precision in place of the MS/MSD.

**Affected Samples:**

F2D170439 (1): B2KFF2

The CCV recovery was outside the upper QC limit (greater than 20% D) for Famphur indicating a potential high bias for this analyte in the samples associated with this CCV. This analyte was not detected above the reporting limit in the associated sample.

**Affected Samples:**

F2D170439 (1): B2KFF2

**Batch: 2111079**

Three liters is the method suggested volume for sample, MS and MSD. Lab practice is to retain volume in case a QC failure requires a re-extraction. The MS/MSD was extracted at a lesser volume to preserve a liter for re-analysis.

**Affected Samples:**

F2D180412 (1): B2KL30

F2D180412 (2): B2KL50

F2D180412 (3): B2KL60

F2D180412 (4): B2KL70

F2D180412 (5): B2KL81

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F2D180412 (6): B2KL82

GC Phenols

Batch: 2110096

Three liters is the method suggested volume for sample, MS and MSD. Lab practice is to retain volume in case a QC failure requires a re-extraction. The MS/MSD was extracted at a lesser volume to preserve a liter for re-analysis.

**Affected Samples:**

F2D170442 (1): B2KK55  
F2D170442 (2): B2KK67  
F2D170442 (3): B2KK60  
F2D170442 (4): B2KK12  
F2D170442 (5): B2KKH1  
F2D170442 (6): B2KK82  
F2D170442 (7): B2KKH0  
F2D170442 (8): B2KK17  
F2D170442 (9): B2KK02  
F2D170442 (10): B2KK34  
F2D170442 (11): B2KK39

Sample surrogate recoveries are outside established QC limits. The sample was reprepared/reanalyzed outside hold time, but within the 2X hold time window. The reanalysis data had acceptable QC recoveries. Both sets of data were non-detect for target analytes. Per SDR 12-245, the original data, with the failing surrogate recoveries performed within hold time, has been reported.

**Affected Samples:**

F2D170442 (11): B2KK39

Pesticides

Batch: 2109122

Two liters were received for these samples. Three liters is the method suggested volume for sample, MS and MSD. Lab practice is to retain volume in case a QC failure requires a re-extraction. LCS/LCSD was performed to demonstrate accuracy and replicate precision in place of the MS/MSD.

**Affected Samples:**

F2D170439 (1): B2KFF2

The LCS and LCSD recovery for delta-BHC is outside the upper QC limits, indicating a potential positive bias for this analyte. This analyte was not detected above the reporting limit in the associated samples; therefore the sample data was not adversely affected by this excursion. The original sample results are provided.

**Affected Samples:**

F2D170439 (1): B2KFF2



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The %D between the primary and secondary column result for beta-BHC and Aldrin is greater than 40%. SW method 8000C prescribes reporting the lower of the two column results in the absence of chromatographic anomalies observed on the column yielding the lower result. The lower result is reported.

**Affected Samples:**

F2D170439 (1): B2KFF2

Sample surrogate recovery is outside established QC limits. This excursion is attributed to a matrix interference which is physically evident in the sample. There is a chromatographic evidence of interference.

**Affected Samples:**

F2D170439 (1): B2KFF2

**PAHs****Batch: 2109121**

Anthracene was detected in the method blank above the method detection limit but below the reporting limit. This analyte has been qualified accordingly with a "B" flag in the associated sample.

**Affected Samples:**

F2D170439 (1): B2KFF2

Two liters were received for these samples. Three liters is the method suggested volume for sample, MS and MSD. Lab practice is to retain volume in case a QC failure requires a re-extraction. LCS/LCSD was performed to demonstrate accuracy and replicate precision in place of the MS/MSD.

**Affected Samples:**

F2D170439 (1): B2KFF2

Several analytes detected in the associated samples were given the "S" qualifier. The "S" was used to designate positive analyte detection on the primary column that appeared questionable during spectral confirmation. The software used to perform the confirmation of hits reviews an overlay of the sample and the reference library spectra. The software evaluates the differences in the spectra and assigns a "match" value. Values above 700 are considered a confirmation and results are reported. Values under the 700 threshold are flagged with the "S" qualifier.

**Affected Samples:**

F2D170439 (1): B2KFF2

There were no observations or nonconformances for the following methods:

Total Sulfide

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I certify that this Summary Package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Reviewed and approved:



Jayna Awalt  
St. Louis Project Manager



**SAMPLE ISSUE RESOLUTION**

**SIR NUM** SDR12-245  
**REV NUM** 0  
**DATE INITIATED** 4/27/2012

**SAMPLE EVENT INFORMATION**

**SAF NUM(S)** W12-004  
**OPERABLE UNIT(S)** NONE  
**PROJECT(S)** RCRA12  
**SAMPLE EVENT TITLE(S)** RCRA12  
**LABORATORY** TestAmerica St. Louis

**SAMPLING INFORMATION**

**NUMBER OF SAMPLES** 1  
**SAMPLE NUMBERS** B2KK39  
**SAMPLE MATRIX** WATER  
**COLLECTION DATE** 4/13/2012 - 4/13/2012  
**SDG NUM** SL1265

**ISSUE BACKGROUND**

**CLASS** Laboratory Issue

**TYPE** Quality Control Failure

**DESCRIPTION** For Phenol analysis, sample surrogate recovery was outside the established QC limits. Sample was non-detect and QC was within acceptance limits. Sample was reanalyzed outside the initial hold time but within two times hold with acceptable surrogate recovery. Sample result was still non-detect with passing QC.

**DISPOSITION**

**DESCRIPTION** PROPOSED DISPOSITION: TASL proposes to report the original analysis performed within hold time with failing surrogate recovery and narrate the excursion in the case narrative.

**JUSTIFICATION** ACCEPTED DISPOSITION: Accept proposed resolution.

SUBMITTED BY: Jayna Awalt/TASL DATE: 4/27/12

ACCEPTED BY: Karen Waters-Husted DATE: 4/30/12

**METHODS SUMMARY**

SL1265

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Organochlorine Pesticides	SW846 8081A	SW846 3520C
Phenols by GC	SW846 8040A	SW846 3520
Polynuclear Aromatic Hydrocarbons by HPLC	SW846 8310	SW846 3510
Semivolatile Organic Compounds by GC/MS	SW846 8270C	SW846 3510C
Sulfide	SW846 9030	
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B

**References:**

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

**SAMPLE SUMMARY**

SL1265 : F2D120462

WO #	SAMPLE#	CLIENT	SAMPLE ID	SAMPLED DATE	SAMP TIME
MR0FX	001	B2KFW5		04/10/12	07:10
MR0F1	002	B2KFW6		04/10/12	11:05

**NOTE (S) :**

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

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**SAMPLE SUMMARY**

SL1265 : F2D120464

WO #	SAMPLE#	CLIENT	SAMPLE ID	SAMPLED DATE	SAMP TIME
MR0F6	001	B2L245		04/10/12	11:05

**NOTE (S) :**

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(Continued on next page)

**SAMPLE SUMMARY**

SL1265 : F2D130428

WO #	SAMPLE#	CLIENT	SAMPLE ID	SAMPLED DATE	SAMP TIME
MR069	001	B2L246		04/11/12	13:16

**NOTE (S) :**

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**SAMPLE SUMMARY**

SL1265 : F2D130430

WO #	SAMPLE#	CLIENT	SAMPLE ID	SAMPLED DATE	SAMP TIME
MR07H	001	B2KFX5		04/11/12	13:16

**NOTE (S) :**

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- This report must not be reproduced, except in full, without the written approval of the laboratory.
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(Continued on next page)

**SAMPLE SUMMARY**

SL1265 : F2D170439

WO #	SAMPLE#	CLIENT	SAMPLE ID	SAMPLED DATE	SAMP TIME
MR2R6	001	B2KFF2		04/13/12	12:45

**NOTE (S) :**

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- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

(Continued on next page)

**SAMPLE SUMMARY**

SL1265 : F2D170441

WO #	SAMPLE#	CLIENT	SAMPLE ID	SAMPLED DATE	SAMP TIME
MR2TD	001	B2K4B7		04/13/12	08:30

**NOTE (S) :**

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- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

(Continued on next page)

**SAMPLE SUMMARY**

SL1265 : F2D170442

WO #	SAMPLE#	CLIENT	SAMPLE ID	SAMPLED DATE	SAMP TIME
MR2TE	001	B2KK55		04/13/12	10:51
MR2TG	002	B2KK67		04/12/12	09:29
MR2TH	003	B2KK60		04/13/12	09:12
MR2TJ	004	B2KK12		04/13/12	08:13
MR2TK	005	B2KKH1		04/13/12	09:42
MR2TL	006	B2KK82		04/13/12	12:09
MR2TM	007	B2KKH0		04/13/12	09:42
MR2TN	008	B2KK17		04/12/12	09:51
MR2TP	009	B2KK02		04/12/12	14:17
MR2TQ	010	B2KK34		04/13/12	08:56
MR2TR	011	B2KK39		04/13/12	09:46
MR2TT	012	B2L247		04/13/12	08:30

**NOTE (S) :**

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- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

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**SAMPLE SUMMARY**

SL1265 : F2D180412

WO #	SAMPLE#	CLIENT	SAMPLE ID	SAMPLED DATE	SAMP TIME
MR3E3	001	B2KL30		04/16/12	09:40
MR3E4	002	B2KL50		04/16/12	10:43
MR3E5	003	B2KL60		04/16/12	13:33
MR3E6	004	B2KL70		04/16/12	11:35
MR3E7	005	B2KL81		04/16/12	09:00
MR3FA	006	B2KL82		04/16/12	11:20

**NOTE (S) :**

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- This report must not be reproduced, except in full, without the written approval of the laboratory.
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**CH2MHill Plateau Remediation Company**  
*SLI265*

**CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

**C.O.C. #**  
**I12-020-020**  
 Page 1 of 1

<b>Collector</b> <b>AL MCINTYRE / CHPRC</b>	<b>Contact/Requester</b> Karen Waters-Husted	<b>Telephone No.</b> 376-4650
<b>SAF No.</b> I12-020	<b>Sampling Origin</b> Hanford Site	<b>Purchase Order/Charge Code</b> 300071ES20
<b>Project Title</b> 2ZP1, APRIL 2012	<b>Logbook No.</b> HNF-N-506 <i>44/51</i>	<b>Ice Chest No.</b> <i>GWS-229-1</i>
<b>Shipped To (Lab)</b> <span style="border: 1px solid black; padding: 2px;">TestAmerica St. Louis</span>	<b>Method of Shipment</b> Commercial Carrier	<b>Bill of Lading/Air Bill No.</b> <i>7982 7163 5784</i>
<b>Protocol</b> CERCLA	<b>Priority:</b> 45 Days	<b>Offsite Property No.</b> <i>N/A</i>

<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)	<b>SPECIAL INSTRUCTIONS</b> <b>Hold Time</b> <b>Total Activity Exemption:</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 200 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.
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Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KFW5	N	W	APR 10 2012	0710	4x40-mL aGs*	8260_VOA_GCMS: List-2 (55)	14 Days	HCl or H2SO4 to pH <2/Cool-4C
B2KFW5	N	W	APR 10 2012	0710	3x500-mL G/P	9030_SULFIDE: Sulfide (1)	7 Days	ZnAc+NaOH to pH > 9/Cool-4C
B2KFW5	N	W	APR 10 2012	0710	1x20-mL P	Activity Scan	6 Months	None

APRIL 30, 2012

Relinquished By <b>AL MCINTYRE / CHPRC</b> <i>[Signature]</i> Date/Time <i>1335</i> <b>APR 10 2012</b>	Received By <i>SSU #1</i> Date/Time <i>1335</i> <b>APR 10 2012</b>	<b>Matrix *</b> S = Soil      DS = Drum Solids SE = Sediment      DL = Drum Liquids SO = Solid      T = Tissue SL = Sludge      WI = Wipe W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other
Relinquished By <i>SSU #1</i> Date/Time <i>0830</i> <b>APR 11 2012</b>	Received By <b>DON BROTHERTON / CHPRC</b> <i>[Signature]</i> Date/Time <i>0830</i> <b>APR 11 2012</b>	
Relinquished By <b>DON BROTHERTON / CHPRC</b> <i>[Signature]</i> Date/Time <i>1410</i> <b>APR 11 2012</b>	Received By <i>FED EX</i> Date/Time	
Relinquished By <i>FedEx</i> Date/Time	Received By <i>SWILSON</i> <i>[Signature]</i> Date/Time <i>0930</i> <b>4-12-12</b>	
<b>FINAL SAMPLE DISPOSITION</b>		
Disposal Method (e.g., Return to customer, per lab procedure, used in process) _____ Disposed By _____ Date/Time _____		

TestAmerica - St. Louis

CH2MHill Plateau Remediation  
Company

SL1265

## CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #

I12-020-021

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Collector: MCINTYRE / CHPRC

Contact/Requester Karen Waters-Husted

Telephone No. 376-4650

SAF No. I12-020

Sampling Origin Hanford Site

Purchase Order/Charge Code 300071ES20

Project Title 2ZP1, APRIL 2012

Logbook No. HNF-N-506 44 / 51

Ice Chest No. BWS -229-1

Shipped To (Lab) TestAmerica St. Louis

Method of Shipment Commercial Carrier

Bill of Lading/Air Bill No. 7982 7163 5784

Protocol CERCLA

Priority: 45 Days

Offsite Property No. N/A

## POSSIBLE SAMPLE HAZARDS/REMARKS



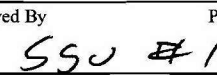
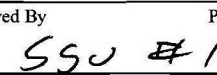
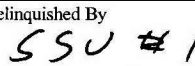
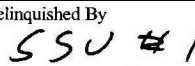


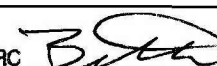
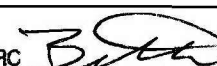
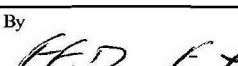
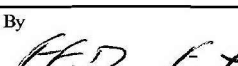
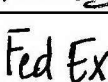
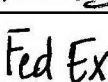
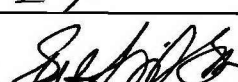
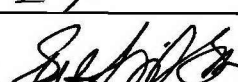
\*\*\* Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)

## SPECIAL INSTRUCTIONS

Hold Time

Total Activity Exemption: Yes ☒ No ☐200 Area Generator Knowledge Information Form applies.  
The CACN for all analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KFW6	N	W	APR 10 2012	1105	4x40-mL aGs*	8260_VOA_GCMS: List-2 (55)	14 Days	HCl or H2SO4 to pH <2/Cool-4C
B2KFW6	N	W	APR 10 2012	1105	3x500-mL G/P	9030_SULFIDE: Sulfide (1)	7 Days	ZnAc+NaOH to pH > 9/Cool-4C
B2KFW6	N	W	APR 10 2012	1105	1x20-mL P	Activity Scan	6 Months	None

Relinquished By AL MCINTYRE / CHPRC	Print 	Sign 	Date/Time 1335 APR 10 2012	Received By SSU #1	Print 	Sign 	Date/Time 1335 APR 10 2012	Matrix * S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquids SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By SSU #1	Print 	Sign 	Date/Time APR 11 2012 0830	Received By DON BROTHERTON / CHPRC	Print 	Sign 	Date/Time APR 11 2012 0830	
Relinquished By DON BROTHERTON / CHPRC	Print 	Sign 	Date/Time APR 11 2012 1400	Received By FED EX	Print 	Sign 	Date/Time	
Relinquished By Fed Ex	Print 	Sign 	Date/Time	Received By SW/son	Print 	Sign 	Date/Time 4.12.12 0930	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By			Date/Time	

APRIL 30, 2012

TestAmerica - St. Louis

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## Detailed Results

Tracking no.: 798271635784

Select time format: 12H

**Delivered**
**Delivered**  
 Signed for by: B.DANIELS

## Shipment Dates

 Ship date Apr 11, 2012  
 Delivery date Apr 12, 2012 9:30 AM

## Destination

 EARTH CITY, MO  
 Signature Proof of Delivery

## Shipment Options

**Hold at FedEx Location**

Hold at FedEx Location service is not available for this shipment.

## Shipment Facts

Service type	Weight	Priority Overnight	Delivered to Reference	Shipping/Receiving
		39.0 lbs/17.7 kg		GWS-229-1

## Shipment Travel History

Select time zone: Local Scan Time

All shipment travel activity is displayed in local time for the location

Date/Time	Activity	Location	Details
Apr 12, 2012 9:30 AM	Delivered	EARTH CITY, MO	
Apr 12, 2012 6:54 AM	On FedEx vehicle for delivery	EARTH CITY, MO	
Apr 12, 2012 6:47 AM	At local FedEx facility	EARTH CITY, MO	
Apr 12, 2012 5:14 AM	At destination sort facility	BERKELEY, MO	
Apr 12, 2012 4:29 AM	Departed FedEx location	MEMPHIS, TN	
Apr 12, 2012 12:59 AM	Arrived at FedEx location	MEMPHIS, TN	
Apr 11, 2012 5:07 PM	Left FedEx origin facility	PASCO, WA	
Apr 11, 2012 3:36 PM	Picked up	PASCO, WA	
Apr 11, 2012 11:27 AM	Shipment information sent to FedEx		



APRIL 30, 2012

TestAmerica - St. Louis

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s):

F2D120462, 464

CUR Form #: 4 8 7

## CONDITION UPON RECEIPT FORM

Client: CHPRC

Quote No: 90229

COC/RFA No: below

Initiated By: [Signature]

Date: 4.12.12

Time: 0930

## Shipping Information

Shipper: FedEx

UPS

DHL

Courier

Client

Other:

Multiple Packages:

Y

N

Shipping # (s):\*

Sample Temperature (s):\*\*

1. 1982 7163 5784

6. \_\_\_\_\_

1. 3

2. \_\_\_\_\_

7. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

8. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

9. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

10. \_\_\_\_\_

5. \_\_\_\_\_

\*Numbered shipping lines correspond to Numbered Sample Temp lines

\*\*Sample must be received at 4°C ± 2°C. If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid; Rad tests- Liquid or Solids; Perchlorate

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1. <input checked="" type="radio"/> N	Are there custody seals present on the cooler?	8. <input checked="" type="radio"/> N	Are there custody seals present on bottles?
2. Y <input checked="" type="radio"/> N/A	Do custody seals on cooler appear to be tampered with?	9. Y <input checked="" type="radio"/> N/A	Do custody seals on bottles appear to be tampered with?
3. <input checked="" type="radio"/> N	Were contents of cooler frisked after opening, but before unpacking?	10. <input checked="" type="radio"/> N N/A	Was sample received with proper pH? (if not, make note below)
4. <input checked="" type="radio"/> N	Sample received with Chain of Custody?	11. Y N <input checked="" type="radio"/> N/A	Containers for C-14, H-3 & I-129/131 marked with "Do Not Preserve" label?
5. <input checked="" type="radio"/> N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. <input checked="" type="radio"/> N	Sample received in proper containers?
6. Y <input checked="" type="radio"/> N	Was sample received broken?	13. Y <input checked="" type="radio"/> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7. <input checked="" type="radio"/> N	Is sample volume sufficient for analysis?	14. Y N <input checked="" type="radio"/> N/A	Was Internal COC/Workshare received?

For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX, Oil &amp; Grease and soils.

Notes:

F12-020-020, 021  
W12-006-170

due date per JA.

## Corrective Action:

☐ Client Contact Name: \_\_\_\_\_

Informed by: \_\_\_\_\_

☐ Sample(s) processed "as is"☐ Sample(s) on hold until: \_\_\_\_\_

If released, notify: \_\_\_\_\_

Project Management Review: [Signature]

Date: 4/17/12

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

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 [Print page](#) | [Close](#) 

## Detailed Results

Tracking no.: 798271635784

Select time format: 12H

**Delivered****Delivered**  
Signed for by: B.DANIELS

## Shipment Dates

Ship date Apr 11, 2012  
Delivery date Apr 12, 2012 9:30 AM

## Destination

EARTH CITY, MO  
Signature Proof of Delivery

## Shipment Options

**Hold at FedEx Location**

Hold at FedEx Location service is not available for this shipment.

## Shipment Facts

Service type	Priority Overnight	Delivered to	Shipping/Receiving
Weight	39.0 lbs/17.7 kg	Reference	GWS-229-1

## Shipment Travel History

Select time zone: Local Scan Time

All shipment travel activity is displayed in local time for the location

Date/Time	Activity	Location	Details
Apr 12, 2012 9:30 AM	Delivered	EARTH CITY, MO	
Apr 12, 2012 6:54 AM	On FedEx vehicle for delivery	EARTH CITY, MO	
Apr 12, 2012 6:47 AM	At local FedEx facility	EARTH CITY, MO	
Apr 12, 2012 5:14 AM	At destination sort facility	BERKELEY, MO	
Apr 12, 2012 4:29 AM	Departed FedEx location	MEMPHIS, TN	
Apr 12, 2012 12:59 AM	Arrived at FedEx location	MEMPHIS, TN	
Apr 11, 2012 5:07 PM	Left FedEx origin facility	PASCO, WA	
Apr 11, 2012 3:36 PM	Picked up	PASCO, WA	
Apr 11, 2012 11:27 AM	Shipment information sent to FedEx		

APRIL 30, 2012

Lot #(s):

F2N20462, 464

TestAmerica - St. Louis

CUR Form #: 4 8 7

## CONDITION UPON RECEIPT FORM

Client: CHPRC

Quote No: 90029

COC/RFA No: below

Initiated By: 3/

Date: 4.12.12

Time: 0930

### Shipping Information

Shipper: FedEx

UPS

DHL

Courier

Client

Other:

Multiple Packages:

Y

(N)

Shipping # (s):\*

Sample Temperature (s):\*\*

1. 1982 7103 5784

6. \_\_\_\_\_

1. 3

2. \_\_\_\_\_

7. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

8. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

9. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

10. \_\_\_\_\_

5. \_\_\_\_\_

\*Numbered shipping lines correspond to Numbered Sample Temp lines

\*\*Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid; Rad tests- Liquid or Solids; Perchlorate

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1. <u>(Y)</u> N	Are there custody seals present on the cooler?	8. <u>(Y)</u> N	Are there custody seals present on bottles?
2. Y <u>(N)</u> N/A	Do custody seals on cooler appear to be tampered with?	9. Y <u>(N)</u> N/A	Do custody seals on bottles appear to be tampered with?
3. <u>(Y)</u> N	Were contents of cooler frisked after opening, but before unpacking?	10. <u>(Y)</u> N N/A	Was sample received with proper pH? (if not, make note below)
4. <u>(Y)</u> N	Sample received with Chain of Custody?	11. Y N <u>(N/A)</u>	Containers for C-14, H-3 & I-129/131 marked with "Do Not Preserve" label?
5. <u>(Y)</u> N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. <u>(Y)</u> N	Sample received in proper containers?
6. Y <u>(N)</u>	Was sample received broken?	13. Y <u>(N)</u> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7. <u>(Y)</u> N	Is sample volume sufficient for analysis?	14. Y N <u>(N/A)</u>	Was Internal COC/Workshare received?

<sup>1</sup> For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX, Oil & Grease and soils.

Notes:

F12-020-020, 021  
W12-004-170

due date per JA.

### Corrective Action:

☐ Client Contact Name: \_\_\_\_\_

Informed by: \_\_\_\_\_

☐ Sample(s) processed "as is"

☐ Sample(s) on hold until: \_\_\_\_\_

If released, notify: \_\_\_\_\_

Project Management Review: Jayna A. Walt

Date: 4/16/12

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

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CH2M Hill Plateau Remediation Company <i>SL265</i> <i>CUR 385</i>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>		C.O.C. # <b>W12-004-171</b>	
Page 1 of 1					

Collector <b>FM Hall CHPRC</b>	Contact/Requester <b>Karen Waters-Husted</b>	Telephone No. <b>376-4650</b>
SAF No. <b>W12-004</b>	Sampling Origin <b>Hanford Site</b>	Purchase Order/Charge Code <b>300071ES20</b>
Project Title <b>RCRA, APRIL 2012</b>	Logbook No. <b>HNF-N-506 45/74</b>	Ice Chest No. <b>GWS-215</b>
Shipped To (Lab) <b>TestAmerica St. Louis</b>	Method of Shipment <b>Commercial Carrier</b>	Bill of Lading/Air Bill No. <b>7934 4630 6690</b>
Protocol <b>RCRA</b>	Priority: <b>45 Days</b>	Offsite Property No. <b>N/A</b>

<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)		<b>SPECIAL INSTRUCTIONS</b> <b>Hold Time</b> Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	--	--	--	---

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2L246	N	W	4/11/12	1316	1x20-mL P	Activity Scan	6 Months	None
B2L246	N	W	↓	↓	4x40-mL aGs*	8260_VOA_GCMS: List-2 (26)	14 Days	HCl or H2SO4 to pH <2/Cool~4C

APRIL 30, 2012

Relinquished By <b>FM Hall CHPRC</b>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <b>APR 11 2012 1515</b>	Received By <b>SSU #1</b>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <b>APR 11 2012 1515</b>	<b>Matrix *</b> S = Soil      DS = Drum Solids SE = Sediment      DL = Drum Liquids SO = Solid      T = Tissue SL = Sludge      WI = Wipe W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other		
Relinquished By <b>SSU #1</b>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <b>APR 12 2012 0710</b>	Received By <b>KC Patterson CHPRC</b>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <b>APR 12 2012 0710</b>			
Relinquished By <b>KC Patterson CHPRC</b>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <b>APR 12 2012 1520</b>	Received By <b>FEDEX</b>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <b>APR 12 2012 1520</b>			
Relinquished By <b>FedEx</b>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <b>APR 13 2012 0930</b>	Received By <b>NICHOLAS</b>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <b>APR 13 2012 0930</b>			
<b>FINAL SAMPLE DISPOSITION</b>		Disposal Method (e.g., Return to customer, per lab procedure, used in process)							Disposed By	Date/Time

TestAmerica - St. Louis

 [Print page](#) | [Close](#) **Detailed Results**

Tracking no.: 793446306690

Select time format: 12H

**Delivered****Delivered**  
Signed for by: B.DANIELS

## Shipment Dates

Ship date Apr 12, 2012  
Delivery date Apr 13, 2012 9:28 AM

## Destination

EARTH CITY, MO  
Signature Proof of Delivery**Shipment Options****Hold at FedEx Location**

Hold at FedEx Location service is not available for this shipment.

**Shipment Facts**

Service type	Priority Overnight	Delivered to	Shipping/Receiving
Weight	20.0 lbs/9.1 kg	Reference	GWS-215

**Shipment Travel History**

Select time zone: Local Scan Time

All shipment travel activity is displayed in local time for the location

Date/Time	Activity	Location	Details
Apr 13, 2012 9:28 AM	<b>Delivered</b>	EARTH CITY, MO	
Apr 13, 2012 7:32 AM	On FedEx vehicle for delivery	EARTH CITY, MO	
Apr 13, 2012 7:25 AM	At local FedEx facility	EARTH CITY, MO	
Apr 13, 2012 5:41 AM	At destination sort facility	BERKELEY, MO	
Apr 13, 2012 4:45 AM	Departed FedEx location	MEMPHIS, TN	
Apr 13, 2012 12:42 AM	Arrived at FedEx location	MEMPHIS, TN	
Apr 12, 2012 5:05 PM	Left FedEx origin facility	PASCO, WA	
Apr 12, 2012 4:19 PM	Picked up	PASCO, WA	
Apr 12, 2012 11:23 AM	Shipment information sent to FedEx		



APRIL 30, 2012

Lot #(s)

F2D130428  
F2D130430

TestAmerica - St. Louis

CUR Form #: 3 8 5

## CONDITION UPON RECEIPT FORM

Client: CHPRC

Quote No: 90029

COC/RFA No: I12-020-022 / I12-004-171

Initiated By: NVD

Date: 4/13/12

Time: 0930

### Shipping Information

Shipper: FedEx UPS DHL Courier Client Other:

Multiple Packages: Y N

Shipping # (s):\*

Sample Temperature (s):\*\*

1. 7934 4630 6690

1. 2

2. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_

\*Numbered shipping lines correspond to Numbered Sample Temp lines

\*\*Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid; Rad tests- Liquid or Solids; Perchlorate

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1. <u>Y</u> N	Are there custody seals present on the cooler?	8. <u>Y</u> N	Are there custody seals present on bottles?
2. Y <u>N</u> N/A	Do custody seals on cooler appear to be tampered with?	9. Y <u>N</u> N/A	Do custody seals on bottles appear to be tampered with?
3. <u>Y</u> N	Were contents of cooler frisked after opening, but before unpacking?	10. <u>Y</u> N N/A	Was sample received with proper pH? (If not, make note below)
4. <u>Y</u> N	Sample received with Chain of Custody?	11. Y N <u>N/A</u>	Containers for C-14, H-3 & I-129/131 marked with "Do Not Preserve" label?
5. <u>Y</u> N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. <u>Y</u> N	Sample received in proper containers?
6. Y <u>N</u>	Was sample received broken?	13. Y <u>N</u> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7. <u>Y</u> N	Is sample volume sufficient for analysis?	14. Y N <u>N/A</u>	Was Internal COC/Workshare received?

<sup>1</sup> For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX, Oil & Grease and soils.

Notes:

### Corrective Action:

☐ Client Contact Name: \_\_\_\_\_

Informed by: \_\_\_\_\_

☐ Sample(s) processed "as is"

☐ Sample(s) on hold until: \_\_\_\_\_

If released, notify: \_\_\_\_\_

Project Management Review: Jayna A. Walt

Date: 4/17/12

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

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<b>CH2M Hill Plateau Remediation Company</b> <i>CUR 385 SL265</i>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>		<b>C.O.C. #</b> <b>112-020-022</b>
Page 1 of 1				

<b>Collector</b> FM Hall CHPRC	<b>Contact/Requester</b> Karen Waters-Husted	<b>Telephone No.</b> 376-4650
<b>SAF No.</b> I12-020	<b>Sampling Origin</b> Hanford Site	<b>Purchase Order/Charge Code</b> 300071ES20
<b>Project Title</b> 2ZP1, APRIL 2012	<b>Logbook No.</b> HNF-N-506 <i>45/74</i>	<b>Ice Chest No.</b> <i>GW5-215</i>
<b>Shipped To (Lab)</b> TestAmerica St. Louis	<b>Method of Shipment</b> Commercial Carrier	<b>Bill of Lading/Air Bill No.</b> <i>7934 4630 6690</i>
<b>Protocol</b> CERCLA	<b>Priority:</b> 45 Days	<b>Offsite Property No.</b> <i>N/A</i>

<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)	<b>SPECIAL INSTRUCTIONS</b> 200 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.	<b>Hold Time</b> Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	--	---

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KFX5	N	W	4/11/12	1316	4x40-mL aGs*	8260_VOA_GCMS: List-2 (55)	14 Days	HCl or H2SO4 to pH <2/Cool~4C
B2KFX5	N	W			3x500-mL G/P	9030_SULFIDE: Sulfide (1)	7 Days	ZnAc+NaOH to pH > 9/Cool~4C
B2KFX5	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months	None

APRIL 30, 2012

Relinquished By FM Hall CHPRC <i>[Signature]</i>	Date/Time APR 11 2012 1515	Received By SSU #1 <i>[Signature]</i>	Date/Time APR 11 2012 1515	<b>Matrix *</b> S = Soil      DS = Drum Solids SE = Sediment      DL = Drum Liquids SO = Solid      T = Tissue SL = Sludge      WI = Wipe W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other
Relinquished By SSU #1 <i>[Signature]</i>	Date/Time APR 12 2012 0710	Received By KC Patterson CHPRC <i>[Signature]</i>	Date/Time APR 12 2012 0710	
Relinquished By KC Patterson CHPRC <i>[Signature]</i>	Date/Time APR 12 2012 1520	Received By FEDEX <i>[Signature]</i>	Date/Time APR 12 2012 1520	
Relinquished By Fed Ex <i>[Signature]</i>	Date/Time APR 13 2012 0930	Received By NICKLAS OWENS <i>[Signature]</i>	Date/Time APR 13 2012 0930	
<b>FINAL SAMPLE DISPOSITION</b> Disposal Method (e.g., Return to customer, per lab procedure, used in process) _____ Disposed By _____ Date/Time _____				

TestAmerica - St. Louis

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## Detailed Results

Tracking no.: 793446306690

Select time format: 12H

## Delivered

**Delivered**  
Signed for by: B.DANIELS

## Shipment Dates

Ship date Apr 12, 2012  
Delivery date Apr 13, 2012 9:28 AM

## Destination

EARTH CITY, MO  
Signature Proof of Delivery

## Shipment Options

## Hold at FedEx Location

Hold at FedEx Location service is not available for this shipment.

## Shipment Facts

Service type	Priority Overnight	Delivered to	Shipping/Receiving
Weight	20.0 lbs/9.1 kg	Reference	GWS-215

## Shipment Travel History

Select time zone: Local Scan Time

All shipment travel activity is displayed in local time for the location

Date/Time	Activity	Location	Details
Apr 13, 2012 9:28 AM	Delivered	EARTH CITY, MO	
Apr 13, 2012 7:32 AM	On FedEx vehicle for delivery	EARTH CITY, MO	
Apr 13, 2012 7:25 AM	At local FedEx facility	EARTH CITY, MO	
Apr 13, 2012 5:41 AM	At destination sort facility	BERKELEY, MO	
Apr 13, 2012 4:45 AM	Departed FedEx location	MEMPHIS, TN	
Apr 13, 2012 12:42 AM	Arrived at FedEx location	MEMPHIS, TN	
Apr 12, 2012 5:05 PM	Left FedEx origin facility	PASCO, WA	
Apr 12, 2012 4:19 PM	Picked up	PASCO, WA	
Apr 12, 2012 11:23 AM	Shipment information sent to FedEx		



APRIL 30, 2012

TestAmerica - St. Louis

Lot #(s):

F2D130428  
F2D130430

CUR Form #: 3 8 5

## CONDITION UPON RECEIPT FORM

Client: CHPRC

Quote No: 90029

COC/RFA No: I12-020-022 / W12-004-171

Initiated By: [Signature]

Date: 4/13/12

Time: 0930

### Shipping Information

Shipper: FedEx UPS DHL Courier Client Other: \_\_\_\_\_

Multiple Packages: Y N

Shipping # (s):\*

Sample Temperature (s):\*\*

1. 7934 4630 6690

1. 2

2. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_  
7. \_\_\_\_\_  
8. \_\_\_\_\_  
9. \_\_\_\_\_  
10. \_\_\_\_\_

6. \_\_\_\_\_  
7. \_\_\_\_\_  
8. \_\_\_\_\_  
9. \_\_\_\_\_  
10. \_\_\_\_\_

\*Numbered shipping lines correspond to Numbered Sample Temp lines

\*\*Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid; Rad tests- Liquid or Solids; Perchlorate

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1. <u>Y</u> N	Are there custody seals present on the cooler?	8. <u>Y</u> N	Are there custody seals present on bottles?
2. Y <u>N</u> N/A	Do custody seals on cooler appear to be tampered with?	9. Y <u>N</u> N/A	Do custody seals on bottles appear to be tampered with?
3. <u>Y</u> N	Were contents of cooler frisked after opening, but before unpacking?	10. <u>Y</u> N N/A	Was sample received with proper pH? (if not, make note below)
4. <u>Y</u> N	Sample received with Chain of Custody?	11. Y N <u>N/A</u>	Containers for C-14, H-3 & I-129/131 marked with "Do Not Preserve" label?
5. <u>Y</u> N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. <u>Y</u> N	Sample received in proper containers?
6. Y <u>N</u>	Was sample received broken?	13. Y <u>N</u> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7. <u>Y</u> N	Is sample volume sufficient for analysis?	14. Y N <u>N/A</u>	Was Internal COC/Workshare received?

<sup>1</sup> For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX, Oil & Grease and soils.

Notes:

### Corrective Action:

☐ Client Contact Name: \_\_\_\_\_

Informed by: \_\_\_\_\_

☐ Sample(s) processed "as is"

☐ Sample(s) on hold until: \_\_\_\_\_

If released, notify: \_\_\_\_\_

Project Management Review: Jayna Analt

Date: 4/17/12

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004 rev13, REVISED 05/27/11 \\slsvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin-0004 CUR.doc



CH2MHill Plateau Remediation Company  
SL1265

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #  
112-016-038  
Page 1 of 1

Collector  
DJ Sparks  
CHPRC

Contact/Requester  
Karen Waters-Husted

Telephone No.  
376-4650

SAF No.  
I12-016

Sampling Origin  
Hanford Site

Purchase Order/Charge Code  
300071ES20

Project Title  
100NR2, MARCH 2012

Logbook No.  
HNF-N-506 44 / 53

Ice Chest No.  
GWS 103

Shipped To (Lab)  
TestAmerica St. Louis

Method of Shipment  
Commercial Carrier

Bill of Lading/Air Bill No.  
7534 5755 3416

Protocol  
CERCLA

Priority:  
30 Days  
PRIORITY

Offsite Property No.  
N/A

POSSIBLE SAMPLE HAZARDS/REMARKS  
\*\*\* Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)  
\* Unable to achieve head space on VOAs

SPECIAL INSTRUCTIONS  
200 Area Generator Knowledge Information Form applies.  
The CACN for all analytical work at WSCF is 401647.

Hold Time  
Total Activity Exemption: Yes ☒ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KFF2	N	W	4.13.12	1245.	2x1-L aG	8081_PEST_GC: List-1 (19)	14/40 Days	Cool<6C
B2KFF2	N	W			4x40-mL aGs*	8260_VOA_GCMS: List-2 (55)	14 Days	HCl or H2SO4 to pH <2/Cool~4C
B2KFF2	N	W			3x1-L aG	8270_SVOA_GCMS_IX: List-1 (123)	7/40 Days	Cool~4C
B2KFF2	N	W			2x1-L aG	8310_SVOA_HPLC	14/40 Days	Cool~4C
B2KFF2	N	W			1x20-mL P	Activity Scan	6 Months	None

Relinquished By  
DJ Sparks  
CHPRC

Received By  
SSU#1

Matrix \*  
S = Soil  
SE = Sediment  
SO = Solid  
SL = Sludge  
W = Water  
O = Oil  
A = Air  
DS = Drum Solids  
DL = Drum Liquids  
T = Tissue  
WI = Wipe  
L = Liquid  
V = Vegetation  
X = Other

Relinquished By  
SSU#1

Received By  
KC Patterson

Relinquished By  
KC Patterson

Received By  
FED EX

Relinquished By  
FED EX



Received By  
J Wilson

FINAL SAMPLE DISPOSITION

Disposal Method (e.g., Return to customer, per lab procedure, used in process)

Disposed By

Date/Time

 [Print page](#) | [Close](#) 

## Detailed Results

Tracking no.: 793457553416

Select time format: 12H

## Delivered

**Delivered**  
Signed for by: B.DANIELS

## Shipment Dates

Ship date Apr 16, 2012  
Delivery date Apr 17, 2012 10:23 AM

## Destination

EARTH CITY, MO  
Signature Proof of Delivery

## Shipment Options

## Hold at FedEx Location

Hold at FedEx Location service is not available for this shipment.

## Shipment Facts

Service type	Priority Overnight	Delivered to	Shipping/Receiving
Weight	50.0 lbs/22.7 kg	Reference	GWS-103

## Shipment Travel History

Select time zone: Local Scan Time

All shipment travel activity is displayed in local time for the location

Date/Time	Activity	Location	Details
Apr 17, 2012 10:23 AM	Delivered	EARTH CITY, MO	
Apr 17, 2012 7:05 AM	On FedEx vehicle for delivery	EARTH CITY, MO	
Apr 17, 2012 6:59 AM	At local FedEx facility	EARTH CITY, MO	
Apr 17, 2012 5:10 AM	At destination sort facility	BERKELEY, MO	
Apr 17, 2012 4:30 AM	Departed FedEx location	MEMPHIS, TN	
Apr 17, 2012 12:39 AM	Arrived at FedEx location	MEMPHIS, TN	
Apr 16, 2012 5:15 PM	Left FedEx origin facility	PASCO, WA	
Apr 16, 2012 4:06 PM	Picked up	PASCO, WA	
Apr 16, 2012 12:13 PM	Shipment information sent to FedEx		

Lot #(s):

E2170439  
441  
442

THE LEADER IN ENVIRONMENTAL TESTING

CUR Form #: 0 1 8

## CONDITION UPON RECEIPT FORM

Client:

CHPR

Quote No:

90029

COC/RFA No:

see below



Initiated By:

Date:

4.17.12

Time:

1020

### Shipping Information

Shipper:

FedEx

UPS

DHL

Courier

Client

Other:

Multiple Packages:

Y N

Shipping # (s):\*

Sample Temperature (s):\*\*

1. 7982 8805 3896  
2. 8809 3845  
3. 7934 5759 1645  
4. 5755 3416  
5. \_\_\_\_\_

6. \_\_\_\_\_  
7. \_\_\_\_\_  
8. \_\_\_\_\_  
9. \_\_\_\_\_  
10. \_\_\_\_\_

1. 2  
2. 2  
3. 2  
4. 3  
5. \_\_\_\_\_

6. \_\_\_\_\_  
7. \_\_\_\_\_  
8. \_\_\_\_\_  
9. \_\_\_\_\_  
10. \_\_\_\_\_

\*Numbered shipping lines correspond to Numbered Sample Temp lines

\*\*Sample must be received at 4°C ± 2°C. If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid; Rad tests- Liquid or Solids; Perchlorate

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1. <u>Y</u> N	Are there custody seals present on the cooler?	8. <u>Y</u> N	Are there custody seals present on bottles?
2. Y <u>N</u> N/A	Do custody seals on cooler appear to be tampered with?	9. Y <u>N</u> N/A	Do custody seals on bottles appear to be tampered with?
3. <u>Y</u> N	Were contents of cooler frisked after opening, but before unpacking?	10. Y N <u>N/A</u>	Was sample received with proper pH? (if not, make note below)
4. <u>Y</u> N	Sample received with Chain of Custody?	11. Y N <u>N/A</u>	Containers for C-14, H-3 & I-129/131 marked with "Do Not Preserve" label?
5. <u>Y</u> N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. <u>Y</u> N	Sample received in proper containers?
6. Y <u>N</u>	Was sample received broken?	13. Y <u>N</u> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7. <u>Y</u> N	Is sample volume sufficient for analysis?	14. Y N <u>N/A</u>	Was Internal COC/Workshare received?

<sup>1</sup> For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX, Oil & Grease and soils.

Notes: W12-004-042, 044, 037, 043, 036, 049, 045, 048, 034, 040, 041, 172  
I12-016-038  
W12-003-086

### Corrective Action:

☐ Client Contact Name:

Informed by:

☐ Sample(s) processed "as is"

☐ Sample(s) on hold until:

If released, notify:

Project Management Review:

Date:

04-20-12

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

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CH2M Hill Plateau Remediation Company

SL1265

18

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #  
W12-003-086

Page 1 of 1

Collector DJ Sparks CHPRC	Contact/Requester Karen Waters-Husted	Telephone No. 376-4650
SAF No. W12-003	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20
Project Title RCRA, MARCH 2012	Logbook No. HNF-N-506 44/52	Ice Chest No. GWS 289
Shipped To (Lab) TestAmerica St. Louis	Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No. 7934 5759 1645
Protocol RCRA	Priority: 45 Days	Offsite Property No. N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

\*\*\*\* Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)

\* Due to duration in the wind unable to achieve 9' head space on Vials

SPECIAL INSTRUCTIONS

Hold Time

Total Activity Exemption: Yes ☒ No ☐

Site Wide Generator Knowledge Information Form applies.  
The CACN for all analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2K4B7	N	W	4/13/12	0830	4x40-mL aGs*	8260_VOA_GCMS: List-3 (56)	14 Days	HCl or H2SO4 to pH <2/Cool~4C
B2K4B7	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months	None

APRIL 30, 2012

Relinquished By DJ Sparks CHPRC	Date/Time APR 13 2012 1400	Received By SSU #1	Date/Time APR 13 2012 1400	Matrix * S = Soil      DS = Drum Solids SE = Sediment      DL = Drum Liquids SO = Solid      T = Tissue SL = Sludge      WI = Wipe W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other
Relinquished By SSU #1	Date/Time APR 16 2012 0800	Received By KC Patterson CHPRC	Date/Time APR 16 2012 1800	
Relinquished By KC Patterson CHPRC	Date/Time APR 16 2012 1520	Received By FEDEX	Date/Time	
Relinquished By FED EX	Date/Time	Received By J Wilson	Date/Time 4.17.12 1020	

FINAL SAMPLE DISPOSITION

Disposal Method (e.g., Return to customer, per lab procedure, used in process)

Disposed By

Date/Time



## Detailed Results

Tracking no.: 793457591645

Select time format: 12H

## Delivered

Delivered  
Signed for by: B.DANIELS

## Shipment Dates

Ship date Apr 16, 2012  
Delivery date Apr 17, 2012 10:23 AM

## Destination

EARTH CITY, MO  
Signature Proof of Delivery

## Shipment Options

## Hold at FedEx Location

Hold at FedEx Location service is not available for this shipment.

## Shipment Facts

Service type	Priority Overnight	Delivered to	Shipping/Receiving
Weight	76.0 lbs/34.5 kg	Reference	GWS-289

## Shipment Travel History

Select time zone: Local Scan Time

All shipment travel activity is displayed in local time for the location

Date/Time	Activity	Location	Details
Apr 17, 2012 10:23 AM	Delivered	EARTH CITY, MO	
Apr 17, 2012 7:08 AM	On FedEx vehicle for delivery	EARTH CITY, MO	
Apr 17, 2012 7:02 AM	At local FedEx facility	EARTH CITY, MO	
Apr 17, 2012 5:10 AM	At destination sort facility	BERKELEY, MO	
Apr 17, 2012 4:30 AM	Departed FedEx location	MEMPHIS, TN	
Apr 17, 2012 12:39 AM	Arrived at FedEx location	MEMPHIS, TN	
Apr 16, 2012 5:15 PM	Left FedEx origin facility	PASCO, WA	
Apr 16, 2012 4:06 PM	Picked up	PASCO, WA	
Apr 16, 2012 12:18 PM	Shipment information sent to FedEx		

Lot #(s):

F21170439

THE LEADER IN ENVIRONMENTAL TESTING

CUR Form #: 0 1 8

441  
442

## CONDITION UPON RECEIPT FORM

Client: CHPR

Quote No: 90029

COC/RFA No: SM below



Initiated By: SM

Date: 4.17.12

Time: 1020

### Shipping Information

Shipper: FedEx UPS DHL Courier Client Other: \_\_\_\_\_ Multiple Packages: (Y) N

Shipping # (s):\*

Sample Temperature (s):\*\*

1. <u>7982</u> <u>8805</u> <u>3896</u>	6. _____	1. <u>2</u>	6. _____
2. <u>8809</u> <u>3845</u>	7. _____	2. <u>2</u>	7. _____
3. <u>7934</u> <u>5759</u> <u>1645</u>	8. _____	3. <u>2</u>	8. _____
4. <u>5755</u> <u>3416</u>	9. _____	4. <u>3</u>	9. _____
5. _____	10. _____	5. _____	10. _____

\*Numbered shipping lines correspond to Numbered Sample Temp lines

\*\*Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid; Rad tests- Liquid or Solids; Perchlorate

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1. <u>(Y)</u> N	Are there custody seals present on the cooler?	8. <u>(Y)</u> N	Are there custody seals present on bottles?
2. Y <u>(N)</u> N/A	Do custody seals on cooler appear to be tampered with?	9. Y <u>(N)</u> N/A	Do custody seals on bottles appear to be tampered with?
3. <u>(Y)</u> N	Were contents of cooler frisked after opening, but before unpacking?	10. Y N <u>(N/A)</u>	Was sample received with proper pH? (if not, make note below)
4. <u>(Y)</u> N	Sample received with Chain of Custody?	11. Y N <u>(N/A)</u>	Containers for C-14, H-3 & I-129/131 marked with "Do Not Preserve" label?
5. <u>(Y)</u> N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. <u>(Y)</u> N	Sample received in proper containers?
6. Y <u>(N)</u>	Was sample received broken?	13. Y <u>(N)</u> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7. <u>(Y)</u> N	Is sample volume sufficient for analysis?	14. Y N <u>(N/A)</u>	Was Internal COC/Workshare received?

<sup>1</sup> For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX, Oil & Grease and soils.

Notes: W12-004-042, 044, 037, 043, 036, 049, 045, 048, 034, 040, 041, 172  
I12-016-038  
W12-003-086

### Corrective Action:

☐ Client Contact Name: \_\_\_\_\_

Informed by: \_\_\_\_\_

☐ Sample(s) processed "as is"

☐ Sample(s) on hold until: \_\_\_\_\_

If released, notify: \_\_\_\_\_

Project Management Review: J. Ridunova

Date: 4/18/12

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

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CH2MHill Plateau Remediation Company  
SL1265

cur 014

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #  
W12-004-042  
Page 1 of 1

Collector KC Patterson CHPRC	Contact/Requester Karen Waters-Husted	Telephone No. 376-4650
SAF No. W12-004	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20
Project Title RCRA, APRIL 2012	Logbook No. HNF-N-506 47 / 51	Ice Chest No. 665-192
Shipped To (Lab) TestAmerica St. Louis	Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No. 7982 8805 3896
Protocol RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS  
\*\*\*\* Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS  
Site Wide Generator Knowledge Information Form applies.  
The CACN for all analytical work at WSCF is 401647.

Hold Time  
Total Activity Exemption: Yes ☒ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KK55	N	W	4/13/12	1051	3x1-L aG	8040_PHENOLIC_GC: List-1 (17)	7/40 Days	Na2S2O3/Cool~4C
B2KK55	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months	None

APRIL 30, 2012

Relinquished By KC Patterson CHPRC	Print 	Sign 	Date/Time 1325 APR 13 2012	Received By SSu	Print 	Sign 	Date/Time 1325 APR 13 2012	Matrix * S = Soil      DS = Drum Solids SE = Sediment      DL = Drum Liquids SO = Solid      T = Tissue SL = Sludge      WI = Wipe W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other
Relinquished By SSu			Date/Time APR 16 2012 0800	Received By KC Patterson CHPRC			Date/Time APR 16 2012 0800	
Relinquished By KC Patterson CHPRC			Date/Time APR 16 2012 1500	Received By FEDEX			Date/Time	
Relinquished By FEDEX			Date/Time	Received By J Wilson			Date/Time 4-17-12 1020	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time
--------------------------	--	-------------	-----------

Collector DJ Sparks CHPRC W12-004	Contact/Requester Karen Waters-Husted	Telephone No. 376-4650
SAF No. W12-004	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20
Project Title RCRA, APRIL 2012	Logbook No. HNF-N-506 45176	Ice Chest No. 6WS-192
Shipped To (Lab) TestAmerica St. Louis	Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No. 7982 8805 3894
Protocol RCRA	Priority: 45 Days	Offsite Property No. N/A

POSSIBLE SAMPLE HAZARDS/REMARKS  
\*\*\* Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS  
Site Wide Generator Knowledge Information Form applies.  
The CACN for all analytical work at WSCF is 401647.

Hold Time  
Total Activity Exemption: Yes ☒ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KK67	N	W	4-12-12	0909	3x1-L aG	8040_PHENOLIC_GC: List-1 (17)	7/40 Days	Na2S2O3/Cool-4C
B2KK67	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months	None

APRIL 30, 2012

Relinquished By DJ Sparks CHPRC SSU-1	Print 	Sign 	Date/Time APR 12 2012 1400	Received By SSU-1	Print 	Sign 	Date/Time APR 12 2012 1400	<b>Matrix *</b> S = Soil      DS = Drum Solids SE = Sediment      DL = Drum Liquids SO = Solid      T = Tissue SL = Sludge      WI = Wipe W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other
Relinquished By KC Patterson CHPRC	Print 	Sign 	Date/Time APR 16 2012 0800	Received By KC Patterson CHPRC	Print 	Sign 	Date/Time APR 16 2012 1800	
Relinquished By KC Patterson CHPRC	Print 	Sign 	Date/Time APR 16 2012 1500	Received By FEDEX	Print 	Sign 	Date/Time APR 16 2012 1500	
Relinquished By FED EX	Print 	Sign 	Date/Time APR 16 2012 1500	Received By SWilson	Print 	Sign 	Date/Time 4-17-12 1020	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By		Date/Time	




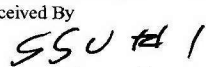

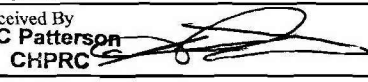

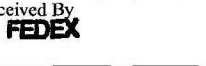

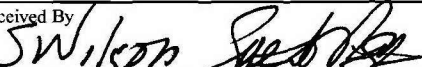
<b>CH2MHill Plateau Remediation Company</b> SL1265	<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>	C.O.C. # <b>W12-004-037</b>
		Page 1 of 1

Collector <b>AL MCINTYRE / CHPRC</b>	Contact/Requester <b>Karen Waters-Husted</b>	Telephone No. <b>376-4650</b>
SAF No. <b>W12-004</b>	Sampling Origin <b>Hanford Site</b>	Purchase Order/Charge Code <b>300071ES20</b>
Project Title <b>RCRA, APRIL 2012</b>	Logbook No. <b>HNF-N-506 47/50</b>	Ice Chest No. <b>6WS-192</b>
Shipped To (Lab) <b>TestAmerica St. Louis</b>	Method of Shipment <b>Commercial Carrier</b>	Bill of Lading/Air Bill No. <b>7982 5805 3896</b>
Protocol <b>RCRA</b>	Priority: <b>45 Days</b>	Offsite Property No. <b>N/A</b>

<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)	<b>SPECIAL INSTRUCTIONS</b> <b>Hold Time</b> Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.	Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	--	---

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KK17	N	W	4/12/12	0951	3x1-L aG	8040_PHENOLIC_GC: List-1 (17)	7/40 Days	Na2S2O3/Cool-4C
B2KK17	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months	None

APRIL 30, 2012

Relinquished By <b>AL MCINTYRE / CHPRC</b> Print  Sign Date/Time <b>APR 12 2012 1520</b>	Received By <b>SSU #1</b> Print  Sign Date/Time <b>APR 12 2012 1520</b>	<b>Matrix *</b> S = Soil      DS = Drum Solids SE = Sediment      DL = Drum Liquids SO = Solid      T = Tissue SL = Sludge      WL = Wipe W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other
Relinquished By <b>SSU #1</b> Print  Sign Date/Time <b>APR 16 2012 0800</b>	Received By <b>KC Patterson CHPRC</b> Print  Sign Date/Time <b>APR 16 2012 0800</b>	
Relinquished By <b>KC Patterson CHPRC</b> Print  Sign Date/Time <b>APR 16 2012 1508</b>	Received By <b>FEDEX</b> Print  Sign Date/Time <b>APR 16 2012 1508</b>	
Relinquished By <b>FEDEX</b> Print  Sign Date/Time <b>APR 16 2012 1508</b>	Received By <b>SWilson</b> Print  Sign Date/Time <b>4.17.12 1020</b>	
<b>FINAL SAMPLE DISPOSITION</b> Disposal Method (e.g., Return to customer, per lab procedure, used in process)      Disposed By      Date/Time		

TestAmerica - St. Louis

<b>CH2M Hill Plateau Remediation Company</b> SL1265	<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>	<b>C.O.C. #</b> <b>W12-004-036</b>
		Page 1 of 1

<b>Collector</b> FM Hall CHPRC	<b>Contact/Requester</b> Karen Waters-Husted	<b>Telephone No.</b> 376-4650
<b>SAF No.</b> W12-004	<b>Sampling Origin</b> Hanford Site	<b>Purchase Order/Charge Code</b> 300071ES20
<b>Project Title</b> RCRA, APRIL 2012	<b>Logbook No.</b> HNF-N-506 45/77	<b>Ice Chest No.</b> GWS 238
<b>Shipped To (Lab)</b> TestAmerica St. Louis	<b>Method of Shipment</b> Commercial Carrier	<b>Bill of Lading/Air Bill No.</b> 7982 8809 3845
<b>Protocol</b> RCRA	<b>Priority:</b> 45 Days	<b>Offsite Property No.</b> N/A

<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)	<b>SPECIAL INSTRUCTIONS</b> Hold Time Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.	<b>Total Activity Exemption:</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---	--

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KK12	N	W	4/13/12	0813	3x1-L aG	8040_PHENOLIC_GC: List-1 (17)	7/40 Days	Na2S2O3/Cool-4C
B2KK12	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months	None

APRIL 30, 2012

<b>Relinquished By</b> FM Hall CHPRC <b>Date/Time</b> APR 13 2012 1500	<b>Received By</b> SSU #1 <b>Date/Time</b> APR 13 2012 1500	<b>Matrix *</b> S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquids SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other	
<b>Relinquished By</b> SSU #1 <b>Date/Time</b> APR 16 2012 0800	<b>Received By</b> KC Patterson <b>Date/Time</b> APR 16 2012 1000		
<b>Relinquished By</b> KC Patterson CHPRC <b>Date/Time</b> APR 16 2012 1000	<b>Received By</b> CHPRC FEDEX <b>Date/Time</b>		
<b>Relinquished By</b> FED EX <b>Date/Time</b>	<b>Received By</b> SW/son <b>Date/Time</b> 4-17-12 1020		
<b>FINAL SAMPLE DISPOSITION</b>	<b>Disposal Method (e.g., Return to customer, per lab procedure, used in process)</b>	<b>Disposed By</b>	<b>Date/Time</b>

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # <b>W12-004-049</b>	
51265 DJ Sparks CHPRC				Page 1 of 1	
Collector	SAF No.	Project Title	Shipped To (Lab)	Contact/Requester	Telephone No.
CHPRC	W12-004	RCRA, APRIL 2012	TestAmerica St. Louis	Karen Waters-Husted	376-4650
				Sampling Origin	Purchase Order/Charge Code
				Hanford Site	300071ES20
				Logbook No.	Ice Chest No.
				HNF-N-506 44/52	CW3 238
				Method of Shipment	Bill of Lading/Air Bill No.
				Commercial Carrier	7982 8809 3845
				Priority: 45 Days	Offsite Property No.
					N/A
POSSIBLE SAMPLE HAZARDS/REMARKS			SPECIAL INSTRUCTIONS		
*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)			Hold Time		
			Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
			Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.		
Sample No.	Filter	*	Date	Time	No/Type Container
B2KKH1	N	W	4-13-12	0942	3x1-L aG
B2KKH1	N	W	↓	↓	1x20-mL P
				Sample Analysis	
				8040_PHENOLIC_GC: List-1 (17)	
				Activity Scan	
				Holding Time	
				7/40 Days	
				6 Months	
				Preservative	
				Na2S2O3/Cool-4C	
				None	

APRIL 30, 2012

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	<b>Matrix *</b> S = Soil      DS = Drum Solids SE = Sediment      DL = Drum Liquids SO = Solid      T = Tissue SL = Sludge      WI = Wipe W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other
DJ Sparks			APR 13 2012 1400	SSU#1			APR 13 2012 1400	
CHPRC								
Relinquished By			Date/Time	Received By			Date/Time	
SSU#1			APR 16 2012 0800	KC Patterson			APR 16 2012 0800	
CHPRC								
Relinquished By			Date/Time	Received By			Date/Time	
KC Patterson			APR 16 2012 1500	FEDEX				
CHPRC								
Relinquished By			Date/Time	Received By			Date/Time	
FEDEX				SWilson			4.17.12 1020	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By		Date/Time	

TestAmerica - St. Louis



CH2MHill Plateau Remediation Company <b>SL1265</b>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>				C.O.C. # <b>W12-004-045</b>		
Collector <b>FM Hall</b> <b>CHPRC</b>		Contact/Requester <b>Karen Waters-Husted</b>		Telephone No. <b>376-4650</b>				
SAF No. <b>W12-004</b>		Sampling Origin <b>Hanford Site</b>		Purchase Order/Charge Code <b>300071ES20</b>				
Project Title <b>RCRA, APRIL 2012</b>		Logbook No. <b>HNF-N-506 45/77</b>		Ice Chest No. <b>GWS 238</b>				
Shipped To (Lab) <b>TestAmerica St. Louis</b>		Method of Shipment <b>Commercial Carrier</b>		Bill of Lading/Air Bill No. <b>2182 8804 3845</b>				
Protocol <b>RCRA</b>		Priority: <b>45 Days</b>		Offsite Property No. <b>N/A</b>				
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)				<b>SPECIAL INSTRUCTIONS</b> <b>Hold Time</b> Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.				
				Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KK82	N	W	4/13/12	1209	3x1-L aG	8040_PHENOLIC_GC: List-1 (17)	7/40 Days	Na2S2O3/Cool~4C
B2KK82	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months	None

APRIL 30, 2012

TestAmerica - St. Louis

Relinquished By <b>FM Hall</b> <b>CHPRC</b>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <b>APR 13 2012 1500</b>	Received By <b>SSU #1</b>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <b>APR 13 2012 1500</b>	<b>Matrix *</b> S = Soil      DS = Drum Solids SE = Sediment      DL = Drum Liquids SO = Solid      T = Tissue SL = Sludge      WI = Wipe W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other	
Relinquished By <b>SSU #1</b>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <b>APR 16 2012 1000</b>	Received By <b>KC Patterson</b> <b>CHPRC</b>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <b>APR 16 2012 1000</b>		
Relinquished By <b>KC Patterson</b> <b>CHPRC</b>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <b>APR 16 2012 1100</b>	Received By <b>FEDEX</b>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <b>APR 16 2012 1100</b>		
Relinquished By <b>FED EX</b>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <b>APR 16 2012 1100</b>	Received By <b>SWilson</b>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <b>4.17.12 1020</b>		
<b>FINAL SAMPLE DISPOSITION</b>		Disposal Method (e.g., Return to customer, per lab procedure, used in process)						Disposed By	Date/Time

CH2MHill Plateau Remediation Company <b>SL1265</b>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>				C.O.C. # <b>W12-004-048</b>		
Collector <b>DJ Sparks</b> <b>CHPRC</b>		Contact/Requester <b>Karen Waters-Husted</b>		Telephone No. <b>376-4650</b>				
SAF No. <b>W12-004</b>		Sampling Origin <b>Hanford Site</b>		Purchase Order/Charge Code <b>300071ES20</b>				
Project Title <b>RCRA, APRIL 2012</b>		Logbook No. <b>HNF-N-506 44152</b>		Ice Chest No. <b>6WS 238</b>				
Shipped To (Lab) <b>TestAmerica St. Louis</b>		Method of Shipment <b>Commercial Carrier</b>		Bill of Lading/Air Bill No. <b>782 8809 3845</b>				
Protocol <b>RCRA</b>		Priority: <b>45 Days</b>		Offsite Property No. <b>N/A</b>				
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)				<b>SPECIAL INSTRUCTIONS</b> <b>Hold Time</b> Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.				
				Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KKH0	N	W	4.13.12	0942	3x1-L aG	8040_PHENOLIC_GC: List-1 (17)	7/40 Days	Na2S2O3/Cool-4C
B2KKH0	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months	None

APRIL 30, 2012

TestAmerica - St. Louis

Relinquished By <b>DJ Sparks</b> <b>CHPRC</b>	Print 	Sign 	Date/Time <b>APR 13 2012 1400</b>	Received By <b>SSU#1</b>	Print 	Sign 	Date/Time <b>APR 13 2012 1400</b>	<b>Matrix *</b> S = Soil      DS = Drum Solids SE = Sediment      DL = Drum Liquids SO = Solid      T = Tissue SL = Sludge      WI = Wipe W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other
Relinquished By <b>SSU#1</b>	Print 	Sign 	Date/Time <b>APR 16 2012 0800</b>	Received By <b>KC Patterson</b> <b>CHPRC</b>	Print 	Sign 	Date/Time <b>APR 16 2012 0800</b>	
Relinquished By <b>KC Patterson</b>	Print 	Sign 	Date/Time <b>APR 16 2012 1500</b>	Received By <b>FEDEX</b>	Print 	Sign 	Date/Time <b>APR 16 2012 1500</b>	
Relinquished By <b>FED EX</b>	Print 	Sign 	Date/Time <b>APR 16 2012 1500</b>	Received By <b>SWilson</b> <b>Sue Wilson</b>	Print 	Sign 	Date/Time <b>4.17.12 1020</b>	
<b>FINAL SAMPLE DISPOSITION</b>		Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By		Date/Time



<b>CH2MHill Plateau Remediation Company</b> SL1265	<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>	C.O.C. # <b>W12-004-043</b>
		Page 1 of 1

Collector <b>KC Patterson</b> <b>CHPRC</b>	Contact/Requester <b>Karen Waters-Husted</b>	Telephone No. <b>376-4650</b>
SAF No. <b>W12-004</b>	Sampling Origin <b>Hanford Site</b>	Purchase Order/Charge Code <b>300071ES20</b>
Project Title <b>RCRA, APRIL 2012</b>	Logbook No. <b>HNF-N-506 47/51</b>	Ice Chest No. <b>645 289</b>
Shipped To (Lab) <b>TestAmerica St. Louis</b>	Method of Shipment <b>Commercial Carrier</b>	Bill of Lading/Air Bill No. <b>7934 5759 1645</b>
Protocol <b>RCRA</b>	Priority: <b>45 Days</b>	Offsite Property No. <b>N/A</b>

<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)	<b>SPECIAL INSTRUCTIONS</b> <b>Hold Time</b> Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.	Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KK60	N	W	4/13/12	0912	3x1-L aG	8040_PHENOLIC_GC: List-1 (17)	7/40 Days	Na2S2O3/Cool-4C
B2KK60	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months	None

APRIL 30, 2012

Relinquished By <b>KC Patterson</b> <b>CHPRC</b>	Date/Time <b>1325</b> <b>APR 13 2012</b>	Received By <b>SSU</b>	Date/Time <b>1325</b> <b>APR 13 2012</b>	<b>Matrix *</b> S = Soil      DS = Drum Solids SE = Sediment      DL = Drum Liquids SO = Solid      T = Tissue SL = Sludge      WI = Wipe W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other	
Relinquished By <b>SSU</b>	Date/Time <b>0800</b> <b>APR 16 2012</b>	Received By <b>KC Patterson</b> <b>CHPRC</b>	Date/Time <b>0800</b> <b>APR 16 2012</b>		
Relinquished By <b>KC Patterson</b> <b>CHPRC</b>	Date/Time <b>1500</b> <b>APR 16 2012</b>	Received By <b>FEDEX</b>	Date/Time		
Relinquished By <b>FEDEX</b>	Date/Time	Received By <b>SWilson</b>	Date/Time <b>4.12.12 1020</b>		
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By	Date/Time

TestAmerica - St. Louis

CollectorAL MCINTYRE / CHPRC

Contact/RequesterKaren Waters-Husted

Telephone No.376-4650

AF No.W12-004

Sampling OriginHanford Site

Purchase Order/Charge Code300071ES20

Project TitleRCRA, APRIL 2012

Logbook No.HNF-N-506 47/50

Ice Chest No.GWS 289

Shipped To (Lab)TestAmerica St. Louis

Method of ShipmentCommercial Carrier

Bill of Lading/Air Bill No.7934 5759 1645

ProtocolRCRA

Priority: 45 Days

Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS  
\*\*\* Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time  
Site Wide Generator Knowledge Information Form applies.  
The CACN for all analytical work at WSCF is 401647.

Total Activity Exemption: Yes ☒ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KK02	N	W	4/12/12	1417	3x1-L aG	8040_PHENOLIC_GC: List-1 (17)	7/40 Days	Na2S2O3/Cool-4C
B2KK02	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months	None

APRIL 30, 2012

Relinquished ByAL MCINTYRE / CHPRC  
SSUHI  
KC Patterson  
FED EX

Print  
Sign  
Date/Time 1520  
APR 12 2012  
APR 16 2012 0800  
APR 16 2012 1530

Received By  
SSUHI  
KC Patterson  
FEDEX  
SWilson

Print  
Sign  
Date/Time 1520  
APR 12 2012  
APR 16 2012 0800  
Date/Time  
4.17.12 1020

Matrix \*  
S = Soil  
SE = Sediment  
SO = Solid  
SL = Sludge  
W = Water  
O = Oil  
A = Air  
DS = Drum Solids  
DL = Drum Liquids  
T = Tissue  
WI = Wipe  
L = Liquid  
V = Vegetation  
X = Other

FINAL SAMPLE DISPOSITION  
Disposal Method (e.g., Return to customer, per lab procedure, used in process)  
Disposed By  
Date/Time

<b>CH2M Hill Plateau Remediation Company</b> <i>SL1265</i>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>			C.O.C. # <b>W12-004-040</b>
		Page 1 of 1			
Collector <b>FM Hall</b> <b>CHPRC</b>	Contact/Requester Karen Waters-Husted	Telephone No. 376-4650			
SAF No. W12-004	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20			
Project Title RCRA, APRIL 2012	Logbook No. HNF-N-506 <i>45 177</i>	Ice Chest No. <i>6WS 285</i>			
Shipped To (Lab) <b>TestAmerica St. Louis</b>	Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No. <i>7934 5755 1645</i>			
Protocol RCRA	Priority: 45 Days	Offsite Property No. <i>N/A</i>			
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)			<b>SPECIAL INSTRUCTIONS</b> <b>Hold Time</b> Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.		
			Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KK34	N	W	<i>4/13/12</i>	<i>0856</i>	3x1-L aG	8040_PHENOLIC_GC: List-1 (17)	7/40 Days	Na2S2O3/Cool-4C
B2KK34	N	W	<i>↓</i>	<i>↓</i>	1x20-mL P	Activity Scan	6 Months	None

APRIL 30, 2012

Relinquished By <b>FM Hall</b> <b>CHPRC</b> <i>SSU #1</i>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <b>APR 13 2012 1500</b>	Received By <b>SSU #1</b> <i>[Signature]</i>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <b>APR 13 2012 1500</b>	<b>Matrix *</b> S = Soil      DS = Drum Solids SE = Sediment      DL = Drum Liquids SO = Solid      T = Tissue SL = Sludge      WI = Wipe W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other		
Relinquished By <b>SSU #1</b>			Date/Time <b>APR 16 2012 0800</b>	Received By <b>KC Patterson</b> <b>CHPRC</b> <i>[Signature]</i>			Date/Time <b>APR 16 2012 1500</b>			
Relinquished By <b>KC Patterson</b> <b>CHPRC</b> <i>[Signature]</i>			Date/Time <b>APR 16 2012 1500</b>	Received By <b>FEDEX</b>						
Relinquished By <b>FEDEX</b>				Received By <b>B. Wilson</b> <i>[Signature]</i>			Date/Time <b>4-17-12 1020</b>			
<b>FINAL SAMPLE DISPOSITION</b>		Disposal Method (e.g., Return to customer, per lab procedure, used in process)							Disposed By	Date/Time

TestAmerica - St. Louis



CH2MHill Plateau Remediation Company 51265		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				C.O.C. # W12-004-041		
Collector FM Hall CHPRC		Contact/Requester Karen Waters-Husted		Telephone No. 376-4650				
SAF No. W12-004		Sampling Origin Hanford Site		Purchase Order/Charge Code 300071ES20				
Project Title RCRA, APRIL 2012		Logbook No. HNF-N-506 45/77		Ice Chest No. 605 289				
Shipped To (Lab) TestAmerica St. Louis		Method of Shipment Commercial Carrier		Bill of Lading/Air Bill No. 7934 5759 1685				
Protocol RCRA		Priority: 45 Days		Offsite Property No. N/A				
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)				<b>SPECIAL INSTRUCTIONS</b> Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.				
				<b>Hold Time</b> Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KK39	N	W	4/13/12	0946	3x1-L aG	8040_PHENOLIC_GC: List-1 (17)	7/40 Days	Na2S2O3/Cool-4C
B2KK39	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months	None

APRIL 30, 2012

Relinquished By FM Hall CHPRC	Print 	Sign 	Date/Time APR 13 2012 1500	Received By SSU #1	Print 	Sign 	Date/Time APR 13 2012 1500	<b>Matrix *</b> S = Soil      DS = Drum Solids SE = Sediment      DL = Drum Liquids SO = Solid      T = Tissue SL = Sludge      WI = Wipe W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other	
Relinquished By SSU #1	Print 	Sign 	Date/Time APR 16 2012 0800	Received By KC Patterson CHPRC	Print 	Sign 	Date/Time APR 16 2012 0800		
Relinquished By KC Patterson CHPRC	Print 	Sign 	Date/Time APR 16 2012 1500	Received By FEDEX	Print 	Sign 	Date/Time APR 16 2012 1500		
Relinquished By FED EX	Print 	Sign 	Date/Time APR 16 2012 1500	Received By SWilson	Print 	Sign 	Date/Time 4-17-12 1020		
<b>FINAL SAMPLE DISPOSITION</b>		Disposal Method (e.g., Return to customer, per lab procedure, used in process)						Disposed By	Date/Time

TestAmerica - St. Louis

<b>CH2MHill Plateau Remediation Company</b> <i>SL1265</i> DJ Sparks CHPHC		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>			C.O.C. # <b>W12-004-172</b>			
					Page 1 of 1			
Collector		Contact/Requester		Telephone No.				
SAF No.		Sampling Origin		Purchase Order/Charge Code				
Project Title		Logbook No.		Ice Chest No.				
Shipped To (Lab)		Method of Shipment		Bill of Lading/Air Bill No.				
Protocol		Priority:		Offsite Property No.				
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)				<b>SPECIAL INSTRUCTIONS</b> <b>Hold Time</b> Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.				
Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2L247	N	W	4.13.12	0830	1x20-mL P	Activity Scan	6 Months	None
B2L247	N	W	↓	↓	4x40-mL aGs*	8260_VOA_GCMS: List-2 (26)	14 Days	HCl or H2SO4 to pH <2/Cool-4C

APRIL 30, 2012

Relinquished By DJ Sparks CHPHC <i>SSU#1</i>		Date/Time APR 13 2012 1400		Received By <i>SSU#1</i>		Date/Time APR 13 2012 1400		<b>Matrix *</b> S = Soil      DS = Drum Solids SE = Sediment      DL = Drum Liquids SO = Solid      T = Tissue SL = Sludge      WI = Wipe W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other			
Relinquished By <i>SSU#1</i>		Date/Time APR 16 2012 0800		Received By KC Patterson CHPRC		Date/Time APR 16 2012 0800					
Relinquished By KC Patterson CHPRC		Date/Time APR 16 2012 1000		Received By FEDEX		Date/Time					
Relinquished By FEDEX		Date/Time		Received By SWilson		Date/Time 4-17-12 1020					
<b>FINAL SAMPLE DISPOSITION</b>		Disposal Method (e.g., Return to customer, per lab procedure, used in process)						Disposed By		Date/Time	

TestAmerica - St. Louis



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## Detailed Results

Tracking no.: 798288053896

Select time format: 12H

## Delivered

Delivered  
Signed for by: B.DANIELS

## Shipment Dates

Ship date Apr 16, 2012  
Delivery date Apr 17, 2012 10:23 AM

## Destination

EARTH CITY, MO  
Signature Proof of Delivery

## Shipment Options

## Hold at FedEx Location

Hold at FedEx Location service is not available for this shipment.

## Shipment Facts

Service type	Priority Overnight	Delivered to	Shipping/Receiving
Weight	67.0 lbs/30.4 kg	Reference	GWS-192

## Shipment Travel History

Select time zone: Local Scan Time

All shipment travel activity is displayed in local time for the location

Date/Time	Activity	Location	Details
Apr 17, 2012 10:23 AM	Delivered	EARTH CITY, MO	
Apr 17, 2012 7:06 AM	On FedEx vehicle for delivery	EARTH CITY, MO	
Apr 17, 2012 7:01 AM	At local FedEx facility	EARTH CITY, MO	
Apr 17, 2012 5:10 AM	At destination sort facility	BERKELEY, MO	
Apr 17, 2012 4:30 AM	Departed FedEx location	MEMPHIS, TN	
Apr 17, 2012 12:39 AM	Arrived at FedEx location	MEMPHIS, TN	
Apr 16, 2012 5:15 PM	Left FedEx origin facility	PASCO, WA	
Apr 16, 2012 4:06 PM	Picked up	PASCO, WA	
Apr 16, 2012 12:11 PM	Shipment information sent to FedEx		

 [Print page](#) | [Close](#) 

## Detailed Results

Tracking no.: 798288093845

Select time format: 12H

## Delivered

Delivered  
Signed for by: B.DANIELS

## Shipment Dates

Ship date Apr 16, 2012  
Delivery date Apr 17, 2012 10:23 AM

## Destination

EARTH CITY, MO  
Signature Proof of Delivery

## Shipment Options

## Hold at FedEx Location

Hold at FedEx Location service is not available for this shipment.

## Shipment Facts

Service type	Priority Overnight	Delivered to	Shipping/Receiving
Weight	70.0 lbs/31.8 kg	Reference	GWS-238

## Shipment Travel History

Select time zone: Local Scan Time

All shipment travel activity is displayed in local time for the location

Date/Time	Activity	Location	Details
Apr 17, 2012 10:23 AM	Delivered	EARTH CITY, MO	
Apr 17, 2012 7:11 AM	On FedEx vehicle for delivery	EARTH CITY, MO	
Apr 17, 2012 7:05 AM	At local FedEx facility	EARTH CITY, MO	
Apr 17, 2012 5:10 AM	At destination sort facility	BERKELEY, MO	
Apr 17, 2012 4:30 AM	Departed FedEx location	MEMPHIS, TN	
Apr 17, 2012 12:39 AM	Arrived at FedEx location	MEMPHIS, TN	
Apr 16, 2012 5:15 PM	Left FedEx origin facility	PASCO, WA	
Apr 16, 2012 4:06 PM	Picked up	PASCO, WA	
Apr 16, 2012 12:17 PM	Shipment information sent to FedEx		

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## Detailed Results

Tracking no.: 793457591645

Select time format: 12H

## Delivered

Delivered  
Signed for by: B.DANIELS

## Shipment Dates

Ship date: Apr 16, 2012  
Delivery date: Apr 17, 2012 10:23 AM

## Destination

EARTH CITY, MO  
Signature Proof of Delivery

## Shipment Options

## Hold at FedEx Location

Hold at FedEx Location service is not available for this shipment.

## Shipment Facts

Service type	Priority Overnight	Delivered to	Shipping/Receiving
Weight	76.0 lbs/34.5 kg	Reference	GWS-289

## Shipment Travel History

Select time zone: Local Scan Time

All shipment travel activity is displayed in local time for the location

Date/Time	Activity	Location	Details
Apr 17, 2012 10:23 AM	Delivered	EARTH CITY, MO	
Apr 17, 2012 7:08 AM	On FedEx vehicle for delivery	EARTH CITY, MO	
Apr 17, 2012 7:02 AM	At local FedEx facility	EARTH CITY, MO	
Apr 17, 2012 5:10 AM	At destination sort facility	BERKELEY, MO	
Apr 17, 2012 4:30 AM	Departed FedEx location	MEMPHIS, TN	
Apr 17, 2012 12:39 AM	Arrived at FedEx location	MEMPHIS, TN	
Apr 16, 2012 5:15 PM	Left FedEx origin facility	PASCO, WA	
Apr 16, 2012 4:06 PM	Picked up	PASCO, WA	
Apr 16, 2012 12:18 PM	Shipment information sent to FedEx		

APRIL 30, 2012

Lot #(s):

F2A170439

TestAmerica - St. Louis

CUR Form #: 0 1 8

441

442

## CONDITION UPON RECEIPT FORM

Client:

CHPRC

Quote No:

90029

COC/RFA No:

SM below

Initiated By:

Date:

4.17.12

Time:

1020

### Shipping Information

Shipper:

FedEx

UPS

DHL

Courier

Client

Other:

Multiple Packages:

(Y) N

Shipping # (s):\*

Sample Temperature (s):\*\*

1. 7982 8805 3896

6.

1. 2

6.

2. 8809 3845

7.

2. 2

7.

3. 7934 5759 1645

8.

3. 2

8.

4. 5755 3416

9.

4. 3

9.

5.

10.

5.

10.

\*Numbered shipping lines correspond to Numbered Sample Temp lines

\*\*Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid; Rad tests- Liquid or Solids; Perchlorate

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1. <u>(Y)</u> N	Are there custody seals present on the cooler?	8. <u>(Y)</u> N	Are there custody seals present on bottles?
2. Y <u>(N)</u> N/A	Do custody seals on cooler appear to be tampered with?	9. Y <u>(N)</u> N/A	Do custody seals on bottles appear to be tampered with?
3. <u>(Y)</u> N	Were contents of cooler frisked after opening, but before unpacking?	10. Y N <u>(N/A)</u>	Was sample received with proper pH? (If not, make note below)
4. <u>(Y)</u> N	Sample received with Chain of Custody?	11. Y N <u>(N/A)</u>	Containers for C-14, H-3 & I-129/131 marked with "Do Not Preserve" label?
5. <u>(Y)</u> N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. <u>(Y)</u> N	Sample received in proper containers?
6. Y <u>(N)</u>	Was sample received broken?	13. Y <u>(N)</u> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7. <u>(Y)</u> N	Is sample volume sufficient for analysis?	14. Y N <u>(N/A)</u>	Was Internal COC/Workshare received?

<sup>1</sup> For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX, Oil & Grease and soils.

Notes:

W12-004-042, 044, 037, 043, 036, 049, 045, 048, 034, 040, 041, 172

I12-016-038

W12-003-086

Corrective Action:

☐ Client Contact Name:

Informed by:

☐ Sample(s) processed "as is"

☐ Sample(s) on hold until:

If released, notify:

Project Management Review:

Date:

4-20-12

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004 rev13, REVISED 05/27/11 \\SLsr01\QA\FORMS\ST-LOUIS\ADMIN\Admin-0004 CUR.doc



<b>CH2M Hill Plateau Remediation Company</b> <i>SL1265</i>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>			<b>C.O.C. #</b> <b>W12-004-140</b>	
					Page 1 of 1	
<b>Collector</b> L.D. Wall CHPRC		<b>Contact/Requester</b> Karen Waters-Husted		<b>Telephone No.</b> 376-4650		
<b>SAF No.</b> W12-004		<b>Sampling Origin</b> Hanford Site		<b>Purchase Order/Charge Code</b> 300071ES20		
<b>Project Title</b> RCRA, APRIL 2012		<b>Logbook No.</b> HNF-N-506 <i>45180</i>		<b>Ice Chest No.</b> <i>6WS 155</i>		
<b>Shipped To (Lab)</b> TestAmerica St. Louis		<b>Method of Shipment</b> Commercial Carrier		<b>Bill of Lading/Air Bill No.</b> <i>7982 9431 9162</i>		
<b>Protocol</b> RCRA		<b>Priority:</b> 45 Days		<b>Offsite Property No.</b> <i>N/A</i>		
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)				<b>SPECIAL INSTRUCTIONS</b> Hold Time Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.		
				Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KL30	N	W	APR 16 2012	0940	3x1-L aG	8270_SVOA_GCMS: 1,4 Dioxane (1)	7/40 Days	Cool-4C
B2KL30	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months	None

APRIL 30, 2012

Relinquished By: <i>L.D. Wall</i> <i>Print</i> <i>Sign</i> Date/Time: <i>APR 16 2012 1400</i>		Received By: <i>SSuch</i> <i>Print</i> <i>Sign</i> Date/Time: <i>APR 16 2012 1400</i>		<b>Matrix *</b> S = Soil      DS = Drum Solids SE = Sediment      DL = Drum Liquids SO = Solid      T = Tissue SL = Sludge      WI = Wipe W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other
Relinquished By: <i>SSuch</i> Date/Time: <i>4-17-12 1030</i>		Received By: <i>REllingsworth</i> <i>Print</i> <i>Sign</i> Date/Time: <i>4-17-12 1030</i>		
Relinquished By: <i>REllingsworth</i> Date/Time: <i>4-17-12 1400</i>		Received By: <i>Fed EX</i> Date/Time: <i>4-17-12 1400</i>		
Relinquished By: <i>FED EX</i> Date/Time: <i>4-17-12 1400</i>		Received By: <i>NICHOLAS OWENS</i> <i>Print</i> <i>Sign</i> Date/Time: <i>4/18/12 1020</i>		
<b>FINAL SAMPLE DISPOSITION</b>		Disposal Method (e.g., Return to customer, per lab procedure, used in process) _____ Disposed By _____ Date/Time _____		

TestAmerica - St. Louis

<b>CH2MHill Plateau Remediation Company</b> <u>SL1265</u>	<h2 style="margin:0;">CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</h2>	<b>C.O.C. #</b> <b>W12-004-142</b> <hr/> Page 1 of 1
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<b>Collector</b> L.D. Wall CHPRC	<b>Contact/Requester</b> Karen Waters-Husted	<b>Telephone No.</b> 376-4650
<b>SAF No.</b> W12-004	<b>Sampling Origin</b> Hanford Site	<b>Purchase Order/Charge Code</b> 300071ES20
<b>Project Title</b> RCRA, APRIL 2012	<b>Logbook No.</b> HNF-N-506 <u>45/80</u>	<b>Ice Chest No.</b> <u>GWS 155</u>
<b>Shipped To (Lab)</b> <div style="border: 1px solid black; padding: 2px;">TestAmerica St. Louis</div>	<b>Method of Shipment</b> Commercial Carrier	<b>Bill of Lading/Air Bill No.</b> <u>7982 9431 9162</u>
<b>Protocol</b> RCRA	<b>Priority:</b> 45 Days	<b>Offsite Property No.</b> <u>N/A</u>

<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)	<b>SPECIAL INSTRUCTIONS</b> Hold Time Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.
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Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KL50	N	W	APR 16 2012	1043	3x1-L aG	8270_SVOA_GCMS: 1,4 Dioxane (1)	7/40 Days	Cool-4C
B2KL50	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months	None

APRIL 30, 2012

Relinquished By L.D. Wall CHPRC	Date/Time APR 16 2012	Received By [Signature]	Date/Time APR 16 2012	<b>Matrix *</b> S = Soil      DS = Drum Solids SE = Sediment      DL = Drum Liquids SO = Solid      T = Tissue SL = Sludge      WI = Wipe W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other
Relinquished By [Signature]	Date/Time 4-17-12 1030	Received By R Ellingsworth L	Date/Time 4-17-12 1030	
Relinquished By R Ellingsworth L	Date/Time 4-17-12 1400	Received By Fed EX	Date/Time [Blank]	
Relinquished By FED EX	Date/Time [Blank]	Received By MICHAEL [Signature] OWEN 3	Date/Time 4/18/12 1020	
<b>FINAL SAMPLE DISPOSITION</b>				
Disposal Method (e.g., Return to customer, per lab procedure, used in process) _____ Disposed By _____ Date/Time _____				

TestAmerica - St. Louis

<b>CH2M Hill Plateau Remediation Company</b> SH1265	<h2 style="margin:0;">CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</h2>	C.O.C. # <b>W12-004-144</b> Page 1 of 1
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<b>Collector</b> L.D. Wall CHPRC	<b>Contact/Requester</b> Karen Waters-Husted	<b>Telephone No.</b> 376-4650
<b>SAF No.</b> W12-004	<b>Sampling Origin</b> Hanford Site	<b>Purchase Order/Charge Code</b> 300071ES20
<b>Project Title</b> RCRA, APRIL 2012	<b>Logbook No.</b> HNF-N-506 45/80	<b>Ice Chest No.</b> GWS 155
<b>Shipped To (Lab)</b> TestAmerica St. Louis	<b>Method of Shipment</b> Commercial Carrier	<b>Bill of Lading/Air Bill No.</b> 7982 9431 9162
<b>Protocol</b> RCRA	<b>Priority:</b> 45 Days	<b>Offsite Property No.</b> N/A

<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)	<b>SPECIAL INSTRUCTIONS</b> Hold Time Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.
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Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KL70	N	W	APR 16 2012	1135	3x1-L aG	8270_SVOA_GCMS: 1,4 Dioxane (1)	7/40 Days	Cool~4C
B2KL70	N	W	↓	↓	1x20-mL P	Activity Scan	6 Months	None

APRIL 30, 2012

Relinquished By L.D. Wall CHPRC	Date/Time APR 16 2012	Received By SSUA1	Date/Time APR 16 2012	Matrix * S = Soil      DS = Drum Solids SE = Sediment   DL = Drum Liquids SO = Solid      T = Tissue SL = Sludge      WI = Wipe W = Water      L = Liquid O = Oil          V = Vegetation A = Air          X = Other
Relinquished By SSUA1	Date/Time 4-17-12 1030	Received By R ELLINGSWORTH	Date/Time 4/17/12 1030	
Relinquished By R ELLINGSWORTH	Date/Time 4-17-12 1400	Received By FED EX	Date/Time 4/18/12 1020	
Relinquished By FED EX	Date/Time	Received By NICHOLAS OWENS	Date/Time	
<b>FINAL SAMPLE DISPOSITION</b>				
Disposal Method (e.g., Return to customer, per lab procedure, used in process) _____ Disposed By _____ Date/Time _____				

TestAmerica - St. Louis



<b>CH2M Hill Plateau Remediation Company</b> <i>SL1265</i>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>			C.O.C. # <b>W12-004-146</b>	
					Page 1 of 1	
Collector <i>D.J. Woehle</i> CHPRC		Contact/Requester <i>Karen Waters-Husted</i>		Telephone No. <i>376-4650</i>		
SAF No. <i>W12-004</i>		Sampling Origin <i>Hanford Site</i>		Purchase Order/Charge Code <i>300071ES20</i>		
Project Title <i>RCRA, APRIL 2012</i>		Logbook No. <i>HNF-N-50644 155</i>		Ice Chest No. <i>6WS 155</i>		
Shipped To (Lab) <i>TestAmerica St. Louis</i>		Method of Shipment <i>Commercial Carrier</i>		Bill of Lading/Air Bill No. <i>7982 9431 9162</i>		
Protocol <i>RCRA</i>		Priority: <i>45 Days</i>		Offsite Property No. <i>N/A</i>		
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)				<b>SPECIAL INSTRUCTIONS</b> <b>Hold Time</b> Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.		
				Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KL82	N	W	<i>4/16/12</i>	<i>1120</i>	3x1-L aG	8270_SVOA_GCMS: 1,4 Dioxane (1)	7/40 Days	Cool~4C
B2KL82	N	W	<i>4/16/12</i>	<i>1120</i>	1x20-mL P	Activity Scan	6 Months	None

APRIL 30, 2012

Relinquished By <i>D.J. Woehle</i> CHPRC		Print <i>[Signature]</i>		Sign <i>[Signature]</i>		Date/Time <i>APR 16 2012</i>		Received By <i>SSU #1</i>		Print <i>[Signature]</i>		Sign <i>[Signature]</i>		Date/Time <i>APR 16 2012</i>		<b>Matrix *</b> S = Soil      DS = Drum Solids SE = Sediment      DL = Drum Liquids SO = Solid      T = Tissue SL = Sludge      W1 = Wipe W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other	
Relinquished By <i>SSU 1</i>		Date/Time <i>4-17-12</i>		Date/Time <i>1030</i>		Received By <i>REllingsworth</i>		Date/Time <i>4-17-12</i>		Date/Time <i>1030</i>							
Relinquished By <i>REllingsworth</i>		Date/Time <i>4-17-12</i>		Date/Time <i>1400</i>		Received By <i>Fed EX</i>		Date/Time		Date/Time							
Relinquished By <i>FED EX</i>		Date/Time		Date/Time		Received By <i>Nicholas Owens</i>		Date/Time <i>4/18/12</i>		Date/Time <i>1020</i>							
<b>FINAL SAMPLE DISPOSITION</b>		Disposal Method (e.g., Return to customer, per lab procedure, used in process)										Disposed By		Date/Time			

TestAmerica - St. Louis



Collector  
D.J. Woenig  
CHPRC

Contact/Requester  
Karen Waters-Husted

Telephone No.  
376-4650

SAF No.  
W12-004

Sampling Origin  
Hanford Site

Purchase Order/Charge Code  
300071ES20

Project Title  
RCRA, APRIL 2012

Logbook No.  
HNF-N-506 44/55

Ice Chest No.  
GWS 188 02

Shipped To (Lab)  
TestAmerica St. Louis

Method of Shipment  
Commercial Carrier

Bill of Lading/Air Bill No.  
7934 6394 1625

Protocol  
RCRA

Priority:  
45 Days

Offsite Property No.  
N/A

POSSIBLE SAMPLE HAZARDS/REMARKS  
\*\*\* Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS  
Site Wide Generator Knowledge Information Form applies.  
The CACN for all analytical work at WSCF is 401647.

Hold Time  
Total Activity Exemption: Yes ☒ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KL60	N	W	4/16/12	1333	3x1-L aG	8270_SVOA_GCMS: 1,4 Dioxane (1)	7/40 Days	Cool~4C
B2KL60	N	W	4/16/12	1333	1x20-mL P	Activity Scan	6 Months	None

APRIL 30, 2012

Relinquished By  
D.J. Woenig  
CHPRC

Print  
Shylbell

Sign  
APR 16 2012

Date/Time  
1426

Received By  
SSU #1

Print  
APR 16 2012

Sign  
APR 16 2012

Date/Time  
1426

Relinquished By  
SSU #1

Date/Time  
4-17-12

Time  
1030

Received By  
REllingsworth L R

Date/Time  
4-17-12

Time  
1030

Relinquished By  
REllingsworth L R

Date/Time  
4-17-12

Time  
1400

Received By  
Fed EX

Date/Time  
4-18-12

Time  
1020

Relinquished By  
FED EX

Date/Time  
4-18-12

Time  
1020

Matrix \*

FINAL SAMPLE DISPOSITION

Disposal Method (e.g., Return to customer, per lab procedure, used in process)

Disposed By

Date/Time

<b>CH2MHill Plateau Remediation Company</b> <i>51265</i>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>			C.O.C. # <b>W12-004-145</b>
Page 1 of 1					
Collector <i>D.J. Woehle</i> <b>CHPRC</b>	Contact/Requester <b>Karen Waters-Husted</b>	Telephone No. <b>376-4650</b>			
SAF No. <b>W12-004</b>	Sampling Origin <b>Hanford Site</b>	Purchase Order/Charge Code <b>300071ES20</b>			
Project Title <b>RCRA, APRIL 2012</b>	Logbook No. <b>HNF-N-506 <i>44 / 55</i></b>	Ice Chest No. <b><i>GWS 189 02</i></b>			
Shipped To (Lab) <b>TestAmerica St. Louis</b>	Method of Shipment <b>Commercial Carrier</b>	Bill of Lading/Air Bill No. <b><i>7934 6394 1625</i></b>			
Protocol <b>RCRA</b>	Priority: <b>45 Days</b>	Offsite Property No. <b><i>N/A</i></b>			
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)			<b>SPECIAL INSTRUCTIONS</b> <b>Hold Time</b> Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.		
			Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2KL81	N	W	<i>4/16/12</i>	<i>0900</i>	3x1-L aG	8270_SVOA_GCMS: 1,4 Dioxane (1)	7/40 Days	Cool-4C
B2KL81	N	W	<i>4/16/12</i>	<i>0900</i>	1x20-mL P	Activity Scan	6 Months	None

APRIL 30, 2012

Relinquished By <i>D.J. Woehle</i> <b>CHPRC</b>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <b>APR 16 2012</b>	Received By <i>SSU #1</i>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <b>APR 16 2012</b>	<b>Matrix *</b> S = Soil      DS = Drum Solids SE = Sediment      DL = Drum Liquids SO = Solid      T = Tissue SL = Sludge      WI = Wipe W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other		
Relinquished By <i>SSU-1</i>			Date/Time <i>4-17-12</i> <i>1030</i>	Received By <i>R Ellingsworth</i>			Date/Time <i>4-17-12</i> <i>1030</i>			
Relinquished By <i>R Ellingsworth</i>			Date/Time <i>4-17-12</i> <i>1400</i>	Received By <i>Fed EX</i>			Date/Time <i>4-17-12</i> <i>1020</i>			
Relinquished By <i>FED EX</i>			Date/Time <i>4-17-12</i> <i>1020</i>	Received By <i>NICHOLAS OWENS</i>			Date/Time <i>4/18/12</i> <i>1020</i>			
<b>FINAL SAMPLE DISPOSITION</b>		Disposal Method (e.g., Return to customer, per lab procedure, used in process)						Disposed By		Date/Time

TestAmerica - St. Louis

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## Detailed Results

Tracking no.: 798294319162

Select time format: 12H

**Delivered****Delivered**  
Signed for by: B.DANIELS

## Shipment Dates

Ship date Apr 17, 2012  
Delivery date Apr 18, 2012 10:19 AM

## Destination

EARTH CITY, MO  
Signature Proof of Delivery

## Shipment Options

**Hold at FedEx Location**

Hold at FedEx Location service is not available for this shipment.

## Shipment Facts

Service type	Weight	Priority Overnight	Delivered to Reference	Shipping/Receiving
		75.0 lbs/34.0 kg		GWS-155

## Shipment Travel History

Select time zone: Local Scan Time

All shipment travel activity is displayed in local time for the location

Date/Time	Activity	Location	Details
Apr 18, 2012 10:19 AM	Delivered	EARTH CITY, MO	
Apr 18, 2012 7:11 AM	On FedEx vehicle for delivery	EARTH CITY, MO	
Apr 18, 2012 7:04 AM	At local FedEx facility	EARTH CITY, MO	
Apr 18, 2012 5:00 AM	At destination sort facility	BERKELEY, MO	
Apr 18, 2012 4:17 AM	Departed FedEx location	MEMPHIS, TN	
Apr 18, 2012 12:45 AM	Arrived at FedEx location	MEMPHIS, TN	
Apr 17, 2012 5:14 PM	Left FedEx origin facility	PASCO, WA	
Apr 17, 2012 4:05 PM	Picked up	PASCO, WA	
Apr 17, 2012 2:26 PM	Shipment information sent to FedEx		

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## Detailed Results

Tracking no.: 793463941625

Select time format: 12H

## Delivered

Delivered  
Signed for by: B.DANIELS

## Shipment Dates

Ship date Apr 17, 2012  
Delivery date Apr 18, 2012 10:19 AM

## Destination

EARTH CITY, MO  
Signature Proof of Delivery

## Shipment Options

## Hold at FedEx Location

Hold at FedEx Location service is not available for this shipment.

## Shipment Facts

Service type	Weight	Priority Overnight	Delivered to Reference	Shipping/Receiving
	46.0 lbs/20.9 kg			gws-189-02

## Shipment Travel History

Select time zone: Local Scan Time

All shipment travel activity is displayed in local time for the location

Date/Time	Activity	Location	Details
Apr 18, 2012 10:19 AM	Delivered	EARTH CITY, MO	
Apr 18, 2012 7:11 AM	On FedEx vehicle for delivery	EARTH CITY, MO	
Apr 18, 2012 7:04 AM	At local FedEx facility	EARTH CITY, MO	
Apr 18, 2012 5:00 AM	At destination sort facility	BERKELEY, MO	
Apr 18, 2012 4:17 AM	Departed FedEx location	MEMPHIS, TN	
Apr 18, 2012 12:45 AM	Arrived at FedEx location	MEMPHIS, TN	
Apr 17, 2012 5:14 PM	Left FedEx origin facility	PASCO, WA	
Apr 17, 2012 4:05 PM	Picked up	PASCO, WA	
Apr 17, 2012 2:41 PM	Shipment information sent to FedEx		



APRIL 30, 2012

TestAmerica - St. Louis

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s):

F2D180412

CUR Form #: 3 8 9

## CONDITION UPON RECEIPT FORM

Client: CHPRC

Quote No: 90029

COC/RFA No: SEE BELOW

Initiated By: NVO

Date: 4/18/12

Time: 1020



## Shipping Information

Shipper: (FedEx) UPS DHL Courier Client Other: Multiple Packages: (Y) N

Shipping # (s):\*

Sample Temperature (s):\*\*

1. 7934 6394 1625

6.

1.

2. 7982 9431 9162

7.

2.

3.

8.

3.

4.

9.

4.

5.

10.

5.

10.

\*Numbered shipping lines correspond to Numbered Sample Temp lines

\*\*Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid; Rad tests- Liquid or Solids; Perchlorate

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	(Y) N	Are there custody seals present on the cooler?	8.	(Y) N	Are there custody seals present on bottles?
2.	Y (N) N/A	Do custody seals on cooler appear to be tampered with?	9.	Y (N) N/A	Do custody seals on bottles appear to be tampered with?
3.	(Y) N	Were contents of cooler frisked after opening, but before unpacking?	10.	Y N (N/A)	Was sample received with proper pH? (If not, make note below)
4.	(Y) N	Sample received with Chain of Custody?	11.	Y N (N/A)	Containers for C-14, H-3 & I-129/131 marked with "Do Not Preserve" label?
5.	(Y) N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	(Y) N	Sample received in proper containers?
6.	Y (N)	Was sample received broken?	13.	Y N (N/A)	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7.	(Y) N	Is sample volume sufficient for analysis?	14.	Y N (N/A)	Was Internal COC/Workshare received?

<sup>1</sup> For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX, Oil & Grease and soils.

Notes:

WL2-004-140

142

143

144

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## Corrective Action:

☐ Client Contact Name:

Informed by:

☐ Sample(s) processed "as is"☐ Sample(s) on hold until:

If released, notify:

Project Management Review:

Date:

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

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# GC/MS VOLATILES

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KFW5

## GC/MS Volatiles

Lot-Sample #....: F2D120462-001    Work Order #....: MR0FX1AJ    Matrix.....: WATER  
 Date Sampled....: 04/10/12    Date Received...: 04/12/12  
 Prep Date.....: 04/18/12    Analysis Date...: 04/18/12  
 Prep Batch #....: 2109084  
 Dilution Factor: 1    Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetonitrile	ND	5.0	ug/L	2.0
Acrolein	ND	10	ug/L	2.8
Bromodichloromethane	ND	1.0	ug/L	0.088
Bromoform	ND	1.0	ug/L	0.17
Bromomethane	ND	2.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.15
Dibromochloromethane	ND	1.0	ug/L	0.13
1,2-Dibromo-3-chloro- propane	ND	1.0	ug/L	0.41
Chloroethane	ND	2.0	ug/L	0.099
Chloromethane	ND	2.0	ug/L	0.077
Allyl chloride	ND	2.0	ug/L	0.11
1,2-Dibromoethane	ND	1.0	ug/L	0.13
Dibromomethane	ND	1.0	ug/L	0.21
trans-1,4-Dichloro- 2-butene	ND	2.0	ug/L	0.29
Dichlorodifluoromethane	ND	2.0	ug/L	0.084
1,1-Dichloroethene	ND	1.0	ug/L	0.083
1,2-Dichloroethene (total)	ND	2.0	ug/L	0.15
1,2-Dichloropropane	ND	1.0	ug/L	0.097
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.073
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.083
1,4-Dioxane	ND	20	ug/L	7.6
Ethylbenzene	ND	1.0	ug/L	0.086
Ethyl methacrylate	ND	1.0	ug/L	0.11
Trichlorofluoromethane	ND	1.0	ug/L	0.11
2-Hexanone	ND	5.0	ug/L	0.22
Iodomethane	ND	2.0	ug/L	0.092
Isobutanol	ND	80	ug/L	8.7
Methacrylonitrile	ND	5.0	ug/L	0.50
Methyl methacrylate	ND	1.0	ug/L	0.26
Styrene	ND	1.0	ug/L	0.074
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.090
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.098
1,2,3-Trichloropropane	ND	1.0	ug/L	0.15
Vinyl acetate	ND	2.0	ug/L	0.18
Chloroprene	ND	1.0	ug/L	0.097
Vinyl chloride	ND	2.0	ug/L	0.084

(Continued on next page)

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KFW5

## GC/MS Volatiles

Lot-Sample #....: F2D120462-001 Work Order #....: MR0FX1AJ Matrix.....: WATER

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	2.0	ug/L	0.34
<b>Methylene chloride</b>	<b>3.3 T</b>	<b>1.0</b>	<b>ug/L</b>	<b>0.27</b>
Carbon disulfide	ND	1.0	ug/L	0.051
1,1-Dichloroethane	ND	1.0	ug/L	0.068
2-Butanone	ND	5.0	ug/L	0.52
Chloroform	ND	1.0	ug/L	0.10
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.087
Propionitrile	ND	5.0	ug/L	1.4
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.083
1,1,1-Trichloroethane	ND	1.0	ug/L	0.069
Carbon tetrachloride	ND	1.0	ug/L	0.12
1,2-Dichloroethane	ND	1.0	ug/L	0.10
Benzene	ND	1.0	ug/L	0.064
Trichloroethene	ND	1.0	ug/L	0.25
4-Methyl-2-pentanone	ND	5.0	ug/L	0.12
1,1,2-Trichloroethane	ND	1.0	ug/L	0.15
Tetrachloroethene	ND	1.0	ug/L	0.18
Tetrahydrofuran	ND	10	ug/L	1.1
Xylenes (total)	ND	3.0	ug/L	0.20
1,4-Dichlorobenzene	ND	1.0	ug/L	0.12
1-Butanol	ND	40	ug/L	12
Toluene	ND	1.0	ug/L	0.072
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
Toluene-d8	102		(85 - 120)	
Dibromofluoromethane	101		(85 - 118)	
1,2-Dichloroethane-d4	94		(80 - 119)	
4-Bromofluorobenzene	93		(84 - 115)	

**NOTE (S) :**

T Spike sample recovery is outside control limits.



## CH2M Hill Plateau Remediation DOE RL

B2KFW5

## GC/MS Volatiles

Lot-Sample #: F2D120462-001

Work Order #: MR0FX1AJ

Matrix: WATER

## MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

<u>PARAMETER</u>	<u>CAS #</u>	<u>ESTIMATED RESULT</u>	<u>RETENTION TIME</u>	<u>UNITS</u>
None				ug/L

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KFW6

## GC/MS Volatiles

Lot-Sample #....: F2D120462-002    Work Order #....: MR0F11AE    Matrix.....: WATER  
 Date Sampled....: 04/10/12    Date Received...: 04/12/12  
 Prep Date.....: 04/18/12    Analysis Date...: 04/18/12  
 Prep Batch #....: 2109084  
 Dilution Factor: 1    Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetonitrile	ND	5.0	ug/L	2.0
Acrolein	ND	10	ug/L	2.8
Bromodichloromethane	ND	1.0	ug/L	0.088
Bromoform	ND	1.0	ug/L	0.17
Bromomethane	ND	2.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.15
Dibromochloromethane	ND	1.0	ug/L	0.13
1,2-Dibromo-3-chloro- propane	ND	1.0	ug/L	0.41
Chloroethane	ND	2.0	ug/L	0.099
Chloromethane	ND	2.0	ug/L	0.077
Allyl chloride	ND	2.0	ug/L	0.11
1,2-Dibromoethane	ND	1.0	ug/L	0.13
Dibromomethane	ND	1.0	ug/L	0.21
trans-1,4-Dichloro- 2-butene	ND	2.0	ug/L	0.29
Dichlorodifluoromethane	ND	2.0	ug/L	0.084
1,1-Dichloroethene	ND	1.0	ug/L	0.083
1,2-Dichloroethene (total)	ND	2.0	ug/L	0.15
1,2-Dichloropropane	ND	1.0	ug/L	0.097
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.073
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.083
1,4-Dioxane	ND	20	ug/L	7.6
Ethylbenzene	ND	1.0	ug/L	0.086
Ethyl methacrylate	ND	1.0	ug/L	0.11
Trichlorofluoromethane	ND	1.0	ug/L	0.11
2-Hexanone	ND	5.0	ug/L	0.22
Iodomethane	ND	2.0	ug/L	0.092
Isobutanol	ND	80	ug/L	8.7
Methacrylonitrile	ND	5.0	ug/L	0.50
Methyl methacrylate	ND	1.0	ug/L	0.26
Styrene	ND	1.0	ug/L	0.074
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.090
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.098
1,2,3-Trichloropropane	ND	1.0	ug/L	0.15
Vinyl acetate	ND	2.0	ug/L	0.18
Chloroprene	ND	1.0	ug/L	0.097
Vinyl chloride	ND	2.0	ug/L	0.084

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## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KFW6

## GC/MS Volatiles

Lot-Sample #....: F2D120462-002 Work Order #....: MR0F11AE Matrix.....: WATER

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	2.0	ug/L	0.34
Methylene chloride	ND T	1.0	ug/L	0.27
Carbon disulfide	ND	1.0	ug/L	0.051
1,1-Dichloroethane	ND	1.0	ug/L	0.068
2-Butanone	ND	5.0	ug/L	0.52
<b>Chloroform</b>	<b>3.1</b>	<b>1.0</b>	<b>ug/L</b>	<b>0.10</b>
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.087
Propionitrile	ND	5.0	ug/L	1.4
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.083
1,1,1-Trichloroethane	ND	1.0	ug/L	0.069
1,2-Dichloroethane	ND	1.0	ug/L	0.10
Benzene	ND	1.0	ug/L	0.064
<b>Trichloroethene</b>	<b>2.3</b>	<b>1.0</b>	<b>ug/L</b>	<b>0.25</b>
4-Methyl-2-pentanone	ND	5.0	ug/L	0.12
1,1,2-Trichloroethane	ND	1.0	ug/L	0.15
Tetrachloroethene	ND	1.0	ug/L	0.18
Tetrahydrofuran	ND	10	ug/L	1.1
Xylenes (total)	ND	3.0	ug/L	0.20
1,4-Dichlorobenzene	ND	1.0	ug/L	0.12
1-Butanol	ND	40	ug/L	12
Toluene	ND	1.0	ug/L	0.072
SURROGATE	PERCENT		RECOVERY	
	RECOVERY	LIMITS		
Toluene-d8	102	(85 - 120)		
Dibromofluoromethane	114	(85 - 118)		
1,2-Dichloroethane-d4	108	(80 - 119)		
4-Bromofluorobenzene	94	(84 - 115)		

**NOTE (S) :**

T Spike sample recovery is outside control limits.

APRIL 30, 2012

TestAmerica - St. Louis

CH2M Hill Plateau Remediation DOE RL

B2KFW6

GC/MS Volatiles

Lot-Sample #: F2D120462-002

Work Order #: MR0F11AE

Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

<u>PARAMETER</u>	<u>CAS #</u>	<u>ESTIMATED RESULT</u>	<u>RETENTION TIME</u>	<u>UNITS</u>
None				ug/L



## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KFW6

## GC/MS Volatiles

Lot-Sample #....: F2D120462-002    Work Order #....: MR0F12AE    Matrix.....: WATER  
Date Sampled...: 04/10/12    Date Received...: 04/12/12  
Prep Date.....: 04/18/12    Analysis Date...: 04/18/12  
Prep Batch #....: 2109084  
Dilution Factor: 25    Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Carbon tetrachloride	390 D	25	ug/L	3.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	104	(85 - 120)
Dibromofluoromethane	108	(85 - 118)
1,2-Dichloroethane-d4	99	(80 - 119)
4-Bromofluorobenzene	100	(84 - 115)

**NOTE (S) :**

D Result was obtained from the analysis of a dilution.

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2L245

## GC/MS Volatiles

Lot-Sample #....: F2D120464-001    Work Order #....: MR0F61AA    Matrix.....: WATER  
 Date Sampled....: 04/10/12    Date Received...: 04/12/12  
 Prep Date.....: 04/17/12    Analysis Date...: 04/17/12  
 Prep Batch #....: 2108089  
 Dilution Factor: 1    Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
1,1-Dichloroethene	ND	1.0	ug/L	0.083
1,4-Dioxane	ND	80	ug/L	7.6
Ethylbenzene	ND	1.0	ug/L	0.086
Vinyl chloride	ND	2.0	ug/L	0.084
Acetone	ND	2.0	ug/L	0.34
<b>Methylene chloride</b>	<b>0.34 J</b>	<b>1.0</b>	<b>ug/L</b>	<b>0.27</b>
Carbon disulfide	ND	1.0	ug/L	0.051
1,1-Dichloroethane	ND	1.0	ug/L	0.068
2-Butanone	ND	5.0	ug/L	0.52
Chloroform	ND	1.0	ug/L	0.10
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.087
Propionitrile	ND	5.0	ug/L	1.4
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.083
1,1,1-Trichloroethane	ND	1.0	ug/L	0.069
Carbon tetrachloride	ND	1.0	ug/L	0.12
1,2-Dichloroethane	ND	1.0	ug/L	0.10
Benzene	ND	1.0	ug/L	0.064
Trichloroethene	ND	1.0	ug/L	0.25
4-Methyl-2-pentanone	ND	5.0	ug/L	0.12
1,1,2-Trichloroethane	ND	1.0	ug/L	0.15
Tetrachloroethene	ND	1.0	ug/L	0.18
Tetrahydrofuran	ND	10	ug/L	1.1
Xylenes (total)	ND	3.0	ug/L	0.20
1,4-Dichlorobenzene	ND	1.0	ug/L	0.12
1-Butanol	ND	40	ug/L	12
Toluene	ND	1.0	ug/L	0.072
SURROGATE	PERCENT RECOVERY	RECOVERY		
		LIMITS		
Toluene-d8	99	(85 - 120)		
Dibromofluoromethane	106	(85 - 118)		
1,2-Dichloroethane-d4	108	(80 - 119)		
4-Bromofluorobenzene	100	(84 - 115)		

**NOTE (S) :**

J Estimated result. Result is less than RL.

## CH2M Hill Plateau Remediation DOE RL

B2L245

## GC/MS Volatiles

Lot-Sample #: F2D120464-001

Work Order #: MR0F61AA

Matrix: WATER

## MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

<u>PARAMETER</u>	<u>CAS #</u>	<u>ESTIMATED RESULT</u>	<u>RETENTION TIME</u>	<u>UNITS</u>
None				ug/L

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2L246

## GC/MS Volatiles

Lot-Sample #....: F2D130428-001    Work Order #....: MR0691AC    Matrix.....: WATER  
 Date Sampled....: 04/11/12    Date Received...: 04/13/12  
 Prep Date.....: 04/17/12    Analysis Date...: 04/17/12  
 Prep Batch #....: 2108089  
 Dilution Factor: 1    Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
1,1-Dichloroethene	ND	1.0	ug/L	0.083
1,4-Dioxane	ND	80	ug/L	7.6
Ethylbenzene	ND	1.0	ug/L	0.086
Vinyl chloride	ND	2.0	ug/L	0.084
Acetone	ND	2.0	ug/L	0.34
<b>Methylene chloride</b>	<b>13</b>	<b>1.0</b>	<b>ug/L</b>	<b>0.27</b>
Carbon disulfide	ND	1.0	ug/L	0.051
1,1-Dichloroethane	ND	1.0	ug/L	0.068
2-Butanone	ND	5.0	ug/L	0.52
Chloroform	ND	1.0	ug/L	0.10
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.087
Propionitrile	ND	5.0	ug/L	1.4
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.083
1,1,1-Trichloroethane	ND	1.0	ug/L	0.069
Carbon tetrachloride	ND	1.0	ug/L	0.12
1,2-Dichloroethane	ND	1.0	ug/L	0.10
Benzene	ND	1.0	ug/L	0.064
Trichloroethene	ND	1.0	ug/L	0.25
4-Methyl-2-pentanone	ND	5.0	ug/L	0.12
1,1,2-Trichloroethane	ND	1.0	ug/L	0.15
Tetrachloroethene	ND	1.0	ug/L	0.18
Tetrahydrofuran	ND	10	ug/L	1.1
Xylenes (total)	ND	3.0	ug/L	0.20
1,4-Dichlorobenzene	ND	1.0	ug/L	0.12
1-Butanol	ND	40	ug/L	12
<b>Toluene</b>	<b>0.10 J</b>	<b>1.0</b>	<b>ug/L</b>	<b>0.072</b>
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
Toluene-d8	102		(85 - 120)	
Dibromofluoromethane	109		(85 - 118)	
1,2-Dichloroethane-d4	112		(80 - 119)	
4-Bromofluorobenzene	98		(84 - 115)	

**NOTE (S) :**

J Estimated result. Result is less than RL.



## CH2M Hill Plateau Remediation DOE RL

B2L246

## GC/MS Volatiles

Lot-Sample #: F2D130428-001

Work Order #: MR0691AC

Matrix: WATER

## MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

<u>PARAMETER</u>	<u>CAS #</u>	<u>ESTIMATED RESULT</u>	<u>RETENTION TIME</u>	<u>UNITS</u>
None				ug/L

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KFX5

## GC/MS Volatiles

Lot-Sample #....: F2D130430-001    Work Order #....: MR07H1AC    Matrix.....: WATER  
 Date Sampled....: 04/11/12    Date Received...: 04/13/12  
 Prep Date.....: 04/18/12    Analysis Date...: 04/18/12  
 Prep Batch #....: 2109084  
 Dilution Factor: 1    Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
1,1-Dichloroethene	ND	1.0	ug/L	0.083
1,2-Dichloroethene	ND	2.0	ug/L	0.15
(total)				
1,2-Dichloropropane	ND	1.0	ug/L	0.097
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.073
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.083
1,4-Dioxane	ND	20	ug/L	7.6
Ethylbenzene	ND	1.0	ug/L	0.086
Ethyl methacrylate	ND	1.0	ug/L	0.11
Trichlorofluoromethane	ND	1.0	ug/L	0.11
2-Hexanone	ND	5.0	ug/L	0.22
Iodomethane	ND	2.0	ug/L	0.092
Isobutanol	ND	80	ug/L	8.7
Methacrylonitrile	ND	5.0	ug/L	0.50
Methyl methacrylate	ND	1.0	ug/L	0.26
Styrene	ND	1.0	ug/L	0.074
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.090
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.098
1,2,3-Trichloropropane	ND	1.0	ug/L	0.15
Vinyl acetate	ND	2.0	ug/L	0.18
Chloroprene	ND	1.0	ug/L	0.097
Acetonitrile	ND	5.0	ug/L	2.0
Acrolein	ND	10	ug/L	2.8
Bromodichloromethane	ND	1.0	ug/L	0.088
Bromoform	ND	1.0	ug/L	0.17
Bromomethane	ND	2.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.15
Dibromochloromethane	ND	1.0	ug/L	0.13
1,2-Dibromo-3-chloro- propane	ND	1.0	ug/L	0.41
Chloroethane	ND	2.0	ug/L	0.099
Chloromethane	ND	2.0	ug/L	0.077
Allyl chloride	ND	2.0	ug/L	0.11
1,2-Dibromoethane	ND	1.0	ug/L	0.13
Dibromomethane	ND	1.0	ug/L	0.21
trans-1,4-Dichloro- 2-butene	ND	2.0	ug/L	0.29
Dichlorodifluoromethane	ND	2.0	ug/L	0.084
Vinyl chloride	ND	2.0	ug/L	0.084

(Continued on next page)

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KFX5

## GC/MS Volatiles

Lot-Sample #....: F2D130430-001 Work Order #....: MR07H1AC Matrix.....: WATER

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	2.0	ug/L	0.34
Methylene chloride	ND T	1.0	ug/L	0.27
Carbon disulfide	ND	1.0	ug/L	0.051
1,1-Dichloroethane	ND	1.0	ug/L	0.068
2-Butanone	ND	5.0	ug/L	0.52
<b>Chloroform</b>	<b>6.2</b>	<b>1.0</b>	<b>ug/L</b>	<b>0.10</b>
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.087
Propionitrile	ND	5.0	ug/L	1.4
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.083
1,1,1-Trichloroethane	ND	1.0	ug/L	0.069
1,2-Dichloroethane	ND	1.0	ug/L	0.10
Benzene	ND	1.0	ug/L	0.064
<b>Trichloroethene</b>	<b>3.7</b>	<b>1.0</b>	<b>ug/L</b>	<b>0.25</b>
4-Methyl-2-pentanone	ND	5.0	ug/L	0.12
1,1,2-Trichloroethane	ND	1.0	ug/L	0.15
Tetrachloroethene	ND	1.0	ug/L	0.18
Tetrahydrofuran	ND	10	ug/L	1.1
Xylenes (total)	ND	3.0	ug/L	0.20
1,4-Dichlorobenzene	ND	1.0	ug/L	0.12
1-Butanol	ND	40	ug/L	12
Toluene	ND	1.0	ug/L	0.072
SURROGATE	PERCENT		RECOVERY	
	RECOVERY	LIMITS		
Toluene-d8	101	(85 - 120)		
Dibromofluoromethane	113	(85 - 118)		
1,2-Dichloroethane-d4	104	(80 - 119)		
4-Bromofluorobenzene	101	(84 - 115)		

**NOTE (S) :**

T Spike sample recovery is outside control limits.

## CH2M Hill Plateau Remediation DOE RL

B2KFX5

## GC/MS Volatiles

Lot-Sample #: F2D130430-001

Work Order #: MR07H1AC

Matrix: WATER

## MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

<u>PARAMETER</u>	<u>CAS #</u>	<u>ESTIMATED RESULT</u>	<u>RETENTION TIME</u>	<u>UNITS</u>
None				ug/L



## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KFX5

## GC/MS Volatiles

Lot-Sample #....: F2D130430-001    Work Order #....: MR07H2AC    Matrix.....: WATER  
Date Sampled....: 04/11/12    Date Received...: 04/13/12  
Prep Date.....: 04/18/12    Analysis Date...: 04/18/12  
Prep Batch #....: 2109084  
Dilution Factor: 25    Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Carbon tetrachloride	390 D	25	ug/L	3.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	105	(85 - 120)
Dibromofluoromethane	110	(85 - 118)
1,2-Dichloroethane-d4	103	(80 - 119)
4-Bromofluorobenzene	99	(84 - 115)

**NOTE (S) :**

D Result was obtained from the analysis of a dilution.

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KFF2

## GC/MS Volatiles

Lot-Sample #....: F2D170439-001    Work Order #....: MR2R61AF    Matrix.....: WATER  
 Date Sampled....: 04/13/12    Date Received...: 04/17/12  
 Prep Date.....: 04/18/12    Analysis Date...: 04/18/12  
 Prep Batch #....: 2109084  
 Dilution Factor: 1    Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetonitrile	ND	5.0	ug/L	2.0
Acrolein	ND	10	ug/L	2.8
Bromodichloromethane	ND	1.0	ug/L	0.088
Bromoform	ND	1.0	ug/L	0.17
Bromomethane	ND	2.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.15
Dibromochloromethane	ND	1.0	ug/L	0.13
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.41
Chloroethane	ND	2.0	ug/L	0.099
Chloromethane	ND	2.0	ug/L	0.077
Allyl chloride	ND	2.0	ug/L	0.11
1,2-Dibromoethane	ND	1.0	ug/L	0.13
Dibromomethane	ND	1.0	ug/L	0.21
trans-1,4-Dichloro-2-butene	ND	2.0	ug/L	0.29
Dichlorodifluoromethane	ND	2.0	ug/L	0.084
1,1-Dichloroethene	ND	1.0	ug/L	0.083
1,2-Dichloroethene (total)	ND	2.0	ug/L	0.15
1,2-Dichloropropane	ND	1.0	ug/L	0.097
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.073
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.083
1,4-Dioxane	ND	20	ug/L	7.6
Ethylbenzene	ND	1.0	ug/L	0.086
Ethyl methacrylate	ND	1.0	ug/L	0.11
Trichlorofluoromethane	ND	1.0	ug/L	0.11
2-Hexanone	ND	5.0	ug/L	0.22
Iodomethane	ND	2.0	ug/L	0.092
Isobutanol	ND	80	ug/L	8.7
Methacrylonitrile	ND	5.0	ug/L	0.50
Methyl methacrylate	ND	1.0	ug/L	0.26
Styrene	ND	1.0	ug/L	0.074
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.090
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.098
1,2,3-Trichloropropane	ND	1.0	ug/L	0.15
Vinyl acetate	ND	2.0	ug/L	0.18
Chloroprene	ND	1.0	ug/L	0.097
Vinyl chloride	ND	2.0	ug/L	0.084

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## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KFF2

## GC/MS Volatiles

Lot-Sample #....: F2D170439-001 Work Order #....: MR2R61AF Matrix.....: WATER

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	2.0	ug/L	0.34
Methylene chloride	ND T	1.0	ug/L	0.27
Carbon disulfide	ND	1.0	ug/L	0.051
1,1-Dichloroethane	ND	1.0	ug/L	0.068
2-Butanone	ND	5.0	ug/L	0.52
Chloroform	ND	1.0	ug/L	0.10
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.087
Propionitrile	ND	5.0	ug/L	1.4
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.083
1,1,1-Trichloroethane	ND	1.0	ug/L	0.069
<b>Carbon tetrachloride</b>	<b>0.53 J</b>	<b>1.0</b>	<b>ug/L</b>	<b>0.12</b>
1,2-Dichloroethane	ND	1.0	ug/L	0.10
Benzene	ND	1.0	ug/L	0.064
Trichloroethene	ND	1.0	ug/L	0.25
4-Methyl-2-pentanone	ND	5.0	ug/L	0.12
1,1,2-Trichloroethane	ND	1.0	ug/L	0.15
Tetrachloroethene	ND	1.0	ug/L	0.18
Tetrahydrofuran	ND	10	ug/L	1.1
Xylenes (total)	ND	3.0	ug/L	0.20
1,4-Dichlorobenzene	ND	1.0	ug/L	0.12
1-Butanol	ND	40	ug/L	12
Toluene	ND	1.0	ug/L	0.072

SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
Toluene-d8	102		(85 - 120)	
Dibromofluoromethane	106		(85 - 118)	
1,2-Dichloroethane-d4	108		(80 - 119)	
4-Bromofluorobenzene	98		(84 - 115)	

**NOTE (S) :**

- T Spike sample recovery is outside control limits.
- J Estimated result. Result is less than RL.

## CH2M Hill Plateau Remediation DOE RL

B2KFF2

## GC/MS Volatiles

Lot-Sample #: F2D170439-001

Work Order #: MR2R61AF

Matrix: WATER

## MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED	RETENTION		UNITS
		RESULT		TIME	
Adamantane	281-23-2	2.7 J	M	15.022	ug/L
Unknown benzene derivative		3.9 J	M	15.519	ug/L
Unknown benzene derivative		4.1 J	M	15.649	ug/L
1H-indene, 2,3-dihydro-1,6-dim	17059-48-2	2.2 J	M	15.696	ug/L
Unknown		5.2 J	M	15.921	ug/L
Unknown benzene derivative		8.2 J	M	16.134	ug/L
Unknown benzene derivative		13 J	M	16.181	ug/L
Unknown benzene derivative		5.4 J	M	16.264	ug/L
Naphthalene, 1,2,3,4-tetrahydr	3877-19-8	7.2 J	M	16.394	ug/L
Unknown benzene derivative		5.9 J	M	16.454	ug/L

**NOTE (S) :**

M : Result was measured against nearest internal standard assuming a response factor of 1.



## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2K4B7

## GC/MS Volatiles

Lot-Sample #....: F2D170441-001    Work Order #....: MR2TD1AC    Matrix.....: WATER  
 Date Sampled....: 04/13/12    Date Received...: 04/17/12  
 Prep Date.....: 04/18/12    Analysis Date...: 04/18/12  
 Prep Batch #....: 2109084  
 Dilution Factor: 1    Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetonitrile	ND	5.0	ug/L	2.0
Acrolein	ND	10	ug/L	2.8
Acrylonitrile	ND	10	ug/L	0.58
Bromodichloromethane	ND	1.0	ug/L	0.088
Bromoform	ND	1.0	ug/L	0.17
Bromomethane	ND	2.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.15
Dibromochloromethane	ND	1.0	ug/L	0.13
1,2-Dibromo-3-chloro- propane	ND	1.0	ug/L	0.41
Chloroethane	ND	2.0	ug/L	0.099
Chloromethane	ND	2.0	ug/L	0.077
Allyl chloride	ND	2.0	ug/L	0.11
1,2-Dibromoethane	ND	1.0	ug/L	0.13
Dibromomethane	ND	1.0	ug/L	0.21
trans-1,4-Dichloro- 2-butene	ND	2.0	ug/L	0.29
Dichlorodifluoromethane	ND	2.0	ug/L	0.084
1,1-Dichloroethene	ND	1.0	ug/L	0.083
1,2-Dichloroethene (total)	ND	2.0	ug/L	0.15
1,2-Dichloropropane	ND	1.0	ug/L	0.097
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.073
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.083
1,4-Dioxane	ND	20	ug/L	7.6
Ethylbenzene	ND	1.0	ug/L	0.086
Ethyl methacrylate	ND	1.0	ug/L	0.11
Trichlorofluoromethane	ND	1.0	ug/L	0.11
2-Hexanone	ND	5.0	ug/L	0.22
Iodomethane	ND	2.0	ug/L	0.092
Isobutanol	ND	80	ug/L	8.7
Methacrylonitrile	ND	5.0	ug/L	0.50
Methyl methacrylate	ND	1.0	ug/L	0.26
Styrene	ND	1.0	ug/L	0.074
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.090
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.098
1,2,3-Trichloropropane	ND	1.0	ug/L	0.15
Vinyl acetate	ND	2.0	ug/L	0.18
Chloroprene	ND	1.0	ug/L	0.097

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## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2K4B7

## GC/MS Volatiles

Lot-Sample #....: F2D170441-001 Work Order #....: MR2TD1AC Matrix.....: WATER

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Vinyl chloride	ND	2.0	ug/L	0.084
Acetone	ND	2.0	ug/L	0.34
Methylene chloride	ND T	1.0	ug/L	0.27
Carbon disulfide	ND	1.0	ug/L	0.051
1,1-Dichloroethane	ND	1.0	ug/L	0.068
2-Butanone	ND	5.0	ug/L	0.52
Chloroform	ND	1.0	ug/L	0.10
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.087
Propionitrile	ND	5.0	ug/L	1.4
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.083
1,1,1-Trichloroethane	ND	1.0	ug/L	0.069
<b>Carbon tetrachloride</b>	<b>0.32 J</b>	<b>1.0</b>	<b>ug/L</b>	<b>0.12</b>
1,2-Dichloroethane	ND	1.0	ug/L	0.10
Benzene	ND	1.0	ug/L	0.064
Trichloroethene	ND	1.0	ug/L	0.25
4-Methyl-2-pentanone	ND	5.0	ug/L	0.12
1,1,2-Trichloroethane	ND	1.0	ug/L	0.15
Tetrachloroethene	ND	1.0	ug/L	0.18
Tetrahydrofuran	ND	10	ug/L	1.1
Xylenes (total)	ND	3.0	ug/L	0.20
1,4-Dichlorobenzene	ND	1.0	ug/L	0.12
1-Butanol	ND	40	ug/L	12
Toluene	ND	1.0	ug/L	0.072

SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
Toluene-d8	98		(85 - 120)	
Dibromofluoromethane	108		(85 - 118)	
1,2-Dichloroethane-d4	112		(80 - 119)	
4-Bromofluorobenzene	96		(84 - 115)	

**NOTE (S) :**

T Spike sample recovery is outside control limits.

J Estimated result. Result is less than RL.

APRIL 30, 2012

TestAmerica - St. Louis

CH2M Hill Plateau Remediation DOE RL

B2K4B7

GC/MS Volatiles

Lot-Sample #: F2D170441-001

Work Order #: MR2TD1AC

Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

<u>PARAMETER</u>	<u>CAS #</u>	<u>ESTIMATED RESULT</u>	<u>RETENTION TIME</u>	<u>UNITS</u>
None				ug/L

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2L247

## GC/MS Volatiles

Lot-Sample #....: F2D170442-012    Work Order #....: MR2TT1AC    Matrix.....: WATER  
 Date Sampled....: 04/13/12    Date Received...: 04/17/12  
 Prep Date.....: 04/18/12    Analysis Date...: 04/18/12  
 Prep Batch #....: 2109084  
 Dilution Factor: 1    Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
1,1-Dichloroethene	ND	1.0	ug/L	0.083
1,4-Dioxane	ND	80	ug/L	7.6
Ethylbenzene	ND	1.0	ug/L	0.086
Vinyl chloride	ND	2.0	ug/L	0.084
Acetone	ND	2.0	ug/L	0.34
<b>Methylene chloride</b>	<b>21 T</b>	<b>1.0</b>	<b>ug/L</b>	<b>0.27</b>
Carbon disulfide	ND	1.0	ug/L	0.051
1,1-Dichloroethane	ND	1.0	ug/L	0.068
2-Butanone	ND	5.0	ug/L	0.52
Chloroform	ND	1.0	ug/L	0.10
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.087
Propionitrile	ND	5.0	ug/L	1.4
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.083
1,1,1-Trichloroethane	ND	1.0	ug/L	0.069
Carbon tetrachloride	ND	1.0	ug/L	0.12
1,2-Dichloroethane	ND	1.0	ug/L	0.10
Benzene	ND	1.0	ug/L	0.064
Trichloroethene	ND	1.0	ug/L	0.25
4-Methyl-2-pentanone	ND	5.0	ug/L	0.12
1,1,2-Trichloroethane	ND	1.0	ug/L	0.15
Tetrachloroethene	ND	1.0	ug/L	0.18
Tetrahydrofuran	ND	10	ug/L	1.1
Xylenes (total)	ND	3.0	ug/L	0.20
1,4-Dichlorobenzene	ND	1.0	ug/L	0.12
1-Butanol	ND	40	ug/L	12
<b>Toluene</b>	<b>0.15 J</b>	<b>1.0</b>	<b>ug/L</b>	<b>0.072</b>
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
Toluene-d8	104		(85 - 120)	
Dibromofluoromethane	102		(85 - 118)	
1,2-Dichloroethane-d4	94		(80 - 119)	
4-Bromofluorobenzene	105		(84 - 115)	

**NOTE (S) :**

- T Spike sample recovery is outside control limits.  
 J Estimated result. Result is less than RL.



## CH2M Hill Plateau Remediation DOE RL

B2L247

## GC/MS Volatiles

Lot-Sample #: F2D170442-012

Work Order #: MR2TT1AC

Matrix: WATER

## MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

<u>PARAMETER</u>	<u>CAS #</u>	<u>ESTIMATED RESULT</u>	<u>RETENTION TIME</u>	<u>UNITS</u>
None				ug/L

## METHOD BLANK REPORT

## GC/MS Volatiles

Client Lot #....: SL1265  
 MB Lot-Sample #: F2D170000-089

Work Order #....: MR2J91AA

Matrix.....: WATER

Analysis Date...: 04/17/12  
 Dilution Factor: 1

Prep Date.....: 04/17/12

Prep Batch #....: 2108089

PARAMETER	RESULT	REPORTING		METHOD
		LIMIT	UNITS	
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	80	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Acetone	ND	2.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
2-Butanone	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Propionitrile	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Tetrahydrofuran	ND	10	ug/L	SW846 8260B
Xylenes (total)	ND	3.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1-Butanol	ND	40	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Toluene-d8	101	(85 - 120)
Dibromofluoromethane	105	(85 - 118)
1,2-Dichloroethane-d4	104	(80 - 119)
4-Bromofluorobenzene	98	(84 - 115)

## NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

## CH2M Hill Plateau Remediation DOE RL

## Method Blank Report

## GC/MS Volatiles

Lot-Sample #: F2D170000-089 B Work Order #: MR2J91AA Matrix: WATER

## MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

<u>PARAMETER</u>	<u>CAS #</u>	<u>ESTIMATED RESULT</u>	<u>RETENTION TIME</u>	<u>UNITS</u>
None				ug/L

## METHOD BLANK REPORT

## GC/MS Volatiles

Client Lot #...: SL1265  
 MB Lot-Sample #: F2D180000-084

Work Order #...: MR3ER1AA

Matrix.....: WATER

Analysis Date...: 04/18/12  
 Dilution Factor: 1

Prep Date.....: 04/18/12

Prep Batch #...: 2109084

PARAMETER	RESULT	REPORTING			METHOD
		LIMIT	UNITS		
Acrolein	ND	10	ug/L	SW846 8260B	
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B	
Bromoform	ND	1.0	ug/L	SW846 8260B	
Bromomethane	ND	2.0	ug/L	SW846 8260B	
Chlorobenzene	ND	1.0	ug/L	SW846 8260B	
Chloroprene	ND	1.0	ug/L	SW846 8260B	
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B	
1,2-Dibromo-3-chloro- propane	ND	1.0	ug/L	SW846 8260B	
Chloroethane	ND	2.0	ug/L	SW846 8260B	
Chloromethane	ND	2.0	ug/L	SW846 8260B	
Allyl chloride	ND	2.0	ug/L	SW846 8260B	
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B	
Dibromomethane	ND	1.0	ug/L	SW846 8260B	
trans-1,4-Dichloro- 2-butene	ND	2.0	ug/L	SW846 8260B	
Dichlorodifluoromethane	ND	2.0	ug/L	SW846 8260B	
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B	
1,2-Dichloroethene (total)	ND	2.0	ug/L	SW846 8260B	
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B	
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B	
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B	
1,4-Dioxane	ND	20	ug/L	SW846 8260B	
Ethylbenzene	ND	1.0	ug/L	SW846 8260B	
Ethyl methacrylate	ND	1.0	ug/L	SW846 8260B	
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B	
2-Hexanone	ND	5.0	ug/L	SW846 8260B	
Iodomethane	ND	2.0	ug/L	SW846 8260B	
Isobutanol	ND	80	ug/L	SW846 8260B	
Methacrylonitrile	ND	5.0	ug/L	SW846 8260B	
Methyl methacrylate	ND	1.0	ug/L	SW846 8260B	
Styrene	ND	1.0	ug/L	SW846 8260B	
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B	
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B	
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B	
Vinyl acetate	ND	2.0	ug/L	SW846 8260B	
Acrylonitrile	ND	10	ug/L	SW846 8260B	
Acetonitrile	ND	5.0	ug/L	SW846 8260B	
Vinyl chloride	ND	2.0	ug/L	SW846 8260B	
Acetone	ND	2.0	ug/L	SW846 8260B	

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## METHOD BLANK REPORT

## GC/MS Volatiles

Client Lot #....: SL1265

Work Order #....: MR3ER1AA

Matrix.....: WATER

PARAMETER	RESULT	REPORTING		METHOD
		LIMIT	UNITS	
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
2-Butanone	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Propionitrile	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Tetrahydrofuran	ND	10	ug/L	SW846 8260B
Xylenes (total)	ND	3.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1-Butanol	ND	40	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Toluene-d8	99	(85 - 120)
Dibromofluoromethane	106	(85 - 118)
1,2-Dichloroethane-d4	105	(80 - 119)
4-Bromofluorobenzene	89	(84 - 115)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

## CH2M Hill Plateau Remediation DOE RL

## Method Blank Report

## GC/MS Volatiles

Lot-Sample #: F2D180000-084 B    Work Order #: MR3ER1AA    Matrix: WATER

## MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

<u>PARAMETER</u>	<u>CAS #</u>	<u>ESTIMATED RESULT</u>	<u>RETENTION TIME</u>	<u>UNITS</u>
None				ug/L

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Volatiles

Client Lot #....: SL1265      Work Order #....: MR2J91AC      Matrix.....: WATER  
 LCS Lot-Sample#: F2D170000-089  
 Prep Date.....: 04/17/12      Analysis Date...: 04/17/12  
 Prep Batch #....: 2108089  
 Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
1,4-Dioxane	200	146	ug/L	73	SW846 8260B
1,1-Dichloroethene	10.0	10.6	ug/L	106	SW846 8260B
Ethylbenzene	10.0	9.81	ug/L	98	SW846 8260B
Vinyl chloride	10.0	8.88	ug/L	89	SW846 8260B
Acetone	10.0	9.05	ug/L	90	SW846 8260B
Methylene chloride	10.0	9.86	ug/L	99	SW846 8260B
Carbon disulfide	10.0	11.4	ug/L	114	SW846 8260B
1,1-Dichloroethane	10.0	9.54	ug/L	95	SW846 8260B
2-Butanone	10.0	9.39	ug/L	94	SW846 8260B
Chloroform	10.0	9.71	ug/L	97	SW846 8260B
cis-1,2-Dichloroethene	10.0	9.98	ug/L	100	SW846 8260B
Propionitrile	50.0	43.5	ug/L	87	SW846 8260B
trans-1,2-Dichloroethene	10.0	10.1	ug/L	101	SW846 8260B
1,1,1-Trichloroethane	10.0	10.4	ug/L	104	SW846 8260B
Carbon tetrachloride	10.0	10.8	ug/L	108	SW846 8260B
1,2-Dichloroethane	10.0	9.36	ug/L	94	SW846 8260B
Benzene	10.0	9.63	ug/L	96	SW846 8260B
Trichloroethene	10.0	9.88	ug/L	99	SW846 8260B
4-Methyl-2-pentanone	10.0	9.15	ug/L	91	SW846 8260B
1,1,2-Trichloroethane	10.0	9.18	ug/L	92	SW846 8260B
Tetrachloroethene	10.0	10.6	ug/L	106	SW846 8260B
Tetrahydrofuran	50.0	39.9	ug/L	80	SW846 8260B
1,4-Dichlorobenzene	10.0	9.80	ug/L	98	SW846 8260B
1-Butanol	100	74.8	ug/L	75	SW846 8260B
Toluene	10.0	10.1	ug/L	101	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	103	(88 - 120)
Dibromofluoromethane	108	(87 - 115)
1,2-Dichloroethane-d4	97	(81 - 117)
4-Bromofluorobenzene	91	(84 - 117)

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #....: SL1265      Work Order #....: MR2J91AC      Matrix.....: WATER  
LCS Lot-Sample#: F2D170000-089

**NOTE (S) :**

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Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters



## LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Volatiles

Client Lot #....: SL1265      Work Order #....: MR3ER1AC      Matrix.....: WATER  
 LCS Lot-Sample#: F2D180000-084  
 Prep Date.....: 04/18/12      Analysis Date...: 04/18/12  
 Prep Batch #....: 2109084  
 Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
cis-1,3-Dichloropropene	10.0	10.9	ug/L	109	SW846 8260B
Dibromochloromethane	10.0	11.3	ug/L	113	SW846 8260B
Chloromethane	10.0	9.85	ug/L	98	SW846 8260B
Bromomethane	10.0	12.4	ug/L	124	SW846 8260B
Chloroethane	10.0	9.27	ug/L	93	SW846 8260B
1,1-Dichloroethene	10.0	10.3	ug/L	103	SW846 8260B
1,2-Dichloroethene (total)	20.0	19.7	ug/L	98	SW846 8260B
1,2-Dichloropropane	10.0	9.56	ug/L	96	SW846 8260B
Bromodichloromethane	10.0	10.0	ug/L	100	SW846 8260B
trans-1,3-Dichloropropene	10.0	10.1	ug/L	101	SW846 8260B
2-Hexanone	10.0	8.96	ug/L	90	SW846 8260B
Chlorobenzene	10.0	8.97	ug/L	90	SW846 8260B
Bromoform	10.0	9.22	ug/L	92	SW846 8260B
Ethylbenzene	10.0	9.38	ug/L	94	SW846 8260B
Styrene	10.0	10.2	ug/L	102	SW846 8260B
1,1,2,2-Tetrachloroethane	10.0	8.21	ug/L	82	SW846 8260B
Allyl chloride	10.0	10.2	ug/L	102	SW846 8260B
1,2-Dibromo-3- chloropropane (DBCP)	10.0	10.3	ug/L	103	SW846 8260B
1,2-Dibromoethane	10.0	9.53	ug/L	95	SW846 8260B
trans-1,4-Dichloro- 2-butene	10.0	10.0	ug/L	100	SW846 8260B
Dichlorodifluoromethane (Freon 12)	10.0	7.16	ug/L	72	SW846 8260B
Ethyl methacrylate	10.0	7.89	ug/L	79	SW846 8260B
Methyl methacrylate	10.0	7.59	ug/L	76	SW846 8260B
1,1,1,2-Tetrachloroethane	10.0	10.8	ug/L	108	SW846 8260B
Trichlorofluoromethane	10.0	10.1	ug/L	101	SW846 8260B
Acetonitrile	50.0	53.4	ug/L	107	SW846 8260B
Iodomethane	10.0	9.06	ug/L	91	SW846 8260B
Vinyl acetate	10.0	8.59	ug/L	86	SW846 8260B
Acrolein	50.0	45.1	ug/L	90	SW846 8260B
Acrylonitrile	50.0	54.3	ug/L	109	SW846 8260B

(Continued on next page)

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Volatiles

Client Lot #....: SL1265

Work Order #....: MR3ER1AC

Matrix.....: WATER

LCS Lot-Sample#: F2D180000-084

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Isobutanol	200	176	ug/L	88	SW846 8260B
Methacrylonitrile	50.0	46.6	ug/L	93	SW846 8260B
1,4-Dioxane	200	151	ug/L	76	SW846 8260B
Chloroprene	10.0	9.05	ug/L	90	SW846 8260B
Dibromomethane	10.0	9.78	ug/L	98	SW846 8260B
1,2,3-Trichloropropane	10.0	8.37	ug/L	84	SW846 8260B
Vinyl chloride	10.0	9.00	ug/L	90	SW846 8260B
Acetone	10.0	9.65	ug/L	97	SW846 8260B
Methylene chloride	10.0	9.50	ug/L	95	SW846 8260B
Carbon disulfide	10.0	11.0	ug/L	110	SW846 8260B
1,1-Dichloroethane	10.0	9.55	ug/L	96	SW846 8260B
2-Butanone	10.0	10.2	ug/L	102	SW846 8260B
Chloroform	10.0	9.85	ug/L	98	SW846 8260B
cis-1,2-Dichloroethene	10.0	9.89	ug/L	99	SW846 8260B
Propionitrile	50.0	48.1	ug/L	96	SW846 8260B
trans-1,2-Dichloroethene	10.0	9.77	ug/L	98	SW846 8260B
1,1,1-Trichloroethane	10.0	10.6	ug/L	106	SW846 8260B
Carbon tetrachloride	10.0	11.0	ug/L	110	SW846 8260B
1,2-Dichloroethane	10.0	9.95	ug/L	100	SW846 8260B
Benzene	10.0	9.54	ug/L	95	SW846 8260B
Trichloroethene	10.0	9.82	ug/L	98	SW846 8260B
4-Methyl-2-pentanone	10.0	10.6	ug/L	106	SW846 8260B
1,1,2-Trichloroethane	10.0	9.00	ug/L	90	SW846 8260B
Tetrachloroethene	10.0	11.3	ug/L	113	SW846 8260B
Tetrahydrofuran	50.0	46.0	ug/L	92	SW846 8260B
1,4-Dichlorobenzene	10.0	9.80	ug/L	98	SW846 8260B
1-Butanol	100	91.2	ug/L	91	SW846 8260B
Toluene	10.0	9.49	ug/L	95	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	99	(88 - 120)
Dibromofluoromethane	113	(87 - 115)
1,2-Dichloroethane-d4	106	(81 - 117)
4-Bromofluorobenzene	87	(84 - 117)

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #....: SL1265      Work Order #....: MR3ER1AC      Matrix.....: WATER  
LCS Lot-Sample#: F2D180000-084

**NOTE (S) :**

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Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## MATRIX SPIKE SAMPLE DATA REPORT

## GC/MS Volatiles

Client Lot #....: SL1265      Work Order #....: MR0F61AC-MS      Matrix.....: WATER  
 MS Lot-Sample #: F2D120464-001      MR0F61AD-MSD  
 Date Sampled...: 04/10/12      Date Received...: 04/12/12  
 Prep Date.....: 04/17/12      Analysis Date...: 04/17/12  
 Prep Batch #....: 2108089  
 Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	ND	10.0	10.5	ug/L	105		SW846 8260B
	ND	10.0	9.87	ug/L	99	5.9	SW846 8260B
Ethylbenzene	ND	10.0	10.1	ug/L	101		SW846 8260B
	ND	10.0	9.57	ug/L	96	5.7	SW846 8260B
1,4-Dioxane	ND	200	222	ug/L	111		SW846 8260B
	ND	200	153	ug/L	77	37	SW846 8260B
Vinyl chloride	ND	10.0	8.72	ug/L	87		SW846 8260B
	ND	10.0	8.46	ug/L	85	2.9	SW846 8260B
Acetone	ND	10.0	9.53	ug/L	95		SW846 8260B
	ND	10.0	9.14	ug/L	91	4.2	SW846 8260B
Methylene chloride	0.34	10.0	11.0	ug/L	106		SW846 8260B
	0.34	10.0	10.0	ug/L	97	8.8	SW846 8260B
Carbon disulfide	ND	10.0	11.9	ug/L	119		SW846 8260B
	ND	10.0	10.9	ug/L	109	8.5	SW846 8260B
1,1-Dichloroethane	ND	10.0	10.2	ug/L	102		SW846 8260B
	ND	10.0	9.51	ug/L	95	7.4	SW846 8260B
2-Butanone	ND	10.0	10.3	ug/L	103		SW846 8260B
	ND	10.0	10.0	ug/L	100	2.6	SW846 8260B
Chloroform	ND	10.0	10.5	ug/L	105		SW846 8260B
	ND	10.0	9.75	ug/L	98	7.1	SW846 8260B
cis-1,2-Dichloroethene	ND	10.0	10.4	ug/L	104		SW846 8260B
	ND	10.0	9.78	ug/L	98	6.5	SW846 8260B
Propionitrile	ND	50.0	49.8	ug/L	100		SW846 8260B
	ND	50.0	45.6	ug/L	91	8.8	SW846 8260B
trans-1,2-Dichloroethene	ND	10.0	10.4	ug/L	104		SW846 8260B
	ND	10.0	9.85	ug/L	99	5.6	SW846 8260B
1,1,1-Trichloroethane	ND	10.0	10.6	ug/L	106		SW846 8260B
	ND	10.0	9.89	ug/L	99	6.5	SW846 8260B
Carbon tetrachloride	ND	10.0	10.9	ug/L	109		SW846 8260B
	ND	10.0	10.2	ug/L	102	7.0	SW846 8260B
1,2-Dichloroethane	ND	10.0	10.0	ug/L	100		SW846 8260B
	ND	10.0	9.65	ug/L	96	4.0	SW846 8260B
Benzene	ND	10.0	10.2	ug/L	102		SW846 8260B
	ND	10.0	9.66	ug/L	97	5.2	SW846 8260B
Trichloroethene	ND	10.0	10.1	ug/L	101		SW846 8260B
	ND	10.0	9.68	ug/L	97	4.1	SW846 8260B
4-Methyl-2-pentanone	ND	10.0	10.8	ug/L	108		SW846 8260B
	ND	10.0	9.91	ug/L	99	8.9	SW846 8260B
1,1,2-Trichloroethane	ND	10.0	10.0	ug/L	100		SW846 8260B
	ND	10.0	9.72	ug/L	97	2.8	SW846 8260B

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## MATRIX SPIKE SAMPLE DATA REPORT

## GC/MS Volatiles

Client Lot #...: SL1265      Work Order #...: MR0F61AC-MS      Matrix.....: WATER  
 MS Lot-Sample #: F2D120464-001      MR0F61AD-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Tetrachloroethene	ND	10.0	9.68	ug/L	97		SW846 8260B
	ND	10.0	9.59	ug/L	96	0.85	SW846 8260B
Tetrahydrofuran	ND	50.0	50.3	ug/L	101		SW846 8260B
	ND	50.0	46.6	ug/L	93	7.5	SW846 8260B
1,4-Dichlorobenzene	ND	10.0	10.4	ug/L	104		SW846 8260B
	ND	10.0	9.81	ug/L	98	5.9	SW846 8260B
1-Butanol	ND	100	89.3	ug/L	89		SW846 8260B
	ND	100	79.9	ug/L	80	11	SW846 8260B
Toluene	ND	10.0	10.3	ug/L	103		SW846 8260B
	ND	10.0	9.69	ug/L	97	6.2	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	105	(85 - 120)
	102	(85 - 120)
Dibromofluoromethane	112	(85 - 118)
	109	(85 - 118)
1,2-Dichloroethane-d4	108	(80 - 119)
	107	(80 - 119)
4-Bromofluorobenzene	94	(84 - 115)
	94	(84 - 115)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## MATRIX SPIKE SAMPLE DATA REPORT

## GC/MS Volatiles

Client Lot #....: SL1265      Work Order #....: MR0FX1AK-MS      Matrix.....: WATER  
 MS Lot-Sample #: F2D120462-001      MR0FX1AL-MSD  
 Date Sampled....: 04/10/12      Date Received...: 04/12/12  
 Prep Date.....: 04/18/12      Analysis Date...: 04/18/12  
 Prep Batch #....: 2109084  
 Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
cis-1,3-Dichloropropene	ND	10.0	10.7	ug/L	107		SW846 8260B
	ND	10.0	10.8	ug/L	108	1.3	SW846 8260B
Chloromethane	ND	10.0	9.85	ug/L	98		SW846 8260B
	ND	10.0	9.48	ug/L	95	3.8	SW846 8260B
Bromomethane	ND	10.0	11.9	ug/L	119		SW846 8260B
	ND	10.0	11.7	ug/L	117	1.2	SW846 8260B
Chloroethane	ND	10.0	9.63	ug/L	96		SW846 8260B
	ND	10.0	9.21	ug/L	92	4.5	SW846 8260B
1,1-Dichloroethene	ND	10.0	10.4	ug/L	104		SW846 8260B
	ND	10.0	10.1	ug/L	101	2.8	SW846 8260B
1,2-Dichloroethene (total)	ND	20.0	19.5	ug/L	98		SW846 8260B
	ND	20.0	19.2	ug/L	96	1.4	SW846 8260B
1,2-Dichloropropane	ND	10.0	9.54	ug/L	95		SW846 8260B
	ND	10.0	9.59	ug/L	96	0.49	SW846 8260B
Bromodichloromethane	ND	10.0	9.75	ug/L	98		SW846 8260B
	ND	10.0	9.89	ug/L	99	1.4	SW846 8260B
trans-1,3-Dichloropropene	ND	10.0	9.81	ug/L	98		SW846 8260B
	ND	10.0	10.1	ug/L	101	3.3	SW846 8260B
2-Hexanone	ND	10.0	8.61	ug/L	86		SW846 8260B
	ND	10.0	9.10	ug/L	91	5.4	SW846 8260B
Chlorobenzene	ND	10.0	9.04	ug/L	90		SW846 8260B
	ND	10.0	8.95	ug/L	89	1.0	SW846 8260B
Bromoform	ND	10.0	8.85	ug/L	88		SW846 8260B
	ND	10.0	9.07	ug/L	91	2.4	SW846 8260B
Ethylbenzene	ND	10.0	9.42	ug/L	94		SW846 8260B
	ND	10.0	9.28	ug/L	93	1.6	SW846 8260B
Styrene	ND	10.0	10.3	ug/L	103		SW846 8260B
	ND	10.0	10.2	ug/L	102	0.78	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	10.0	8.32	ug/L	83		SW846 8260B
	ND	10.0	8.44	ug/L	84	1.4	SW846 8260B
Dibromochloromethane	ND	10.0	11.0	ug/L	110		SW846 8260B
	ND	10.0	11.0	ug/L	110	0.45	SW846 8260B
Allyl chloride	ND	10.0	9.72	ug/L	97		SW846 8260B
	ND	10.0	9.65	ug/L	97	0.69	SW846 8260B
	ND	10.0	8.92	ug/L	89	8.7	SW846 8260B
1,2-Dibromoethane	ND	10.0	9.63	ug/L	96		SW846 8260B
	ND	10.0	9.70	ug/L	97	0.77	SW846 8260B

(Continued on next page)

## MATRIX SPIKE SAMPLE DATA REPORT

## GC/MS Volatiles

Client Lot #....: SL1265      Work Order #....: MR0FX1AK-MS      Matrix.....: WATER  
 MS Lot-Sample #: F2D120462-001      MR0FX1AL-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
trans-1,4-Dichloro- 2-butene	ND	10.0	10.2	ug/L	102		SW846 8260B
	ND	10.0	9.47	ug/L	95	7.2	SW846 8260B
Dichlorodifluoromethane (Freon 12)	ND	10.0	7.02	ug/L	70		SW846 8260B
	ND	10.0	6.88	ug/L	69	2.0	SW846 8260B
Ethyl methacrylate	ND	10.0	7.68	ug/L	77		SW846 8260B
	ND	10.0	7.74	ug/L	77	0.64	SW846 8260B
Methyl methacrylate	ND	10.0	7.92	ug/L	79		SW846 8260B
	ND	10.0	8.04	ug/L	80	1.6	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	10.0	10.5	ug/L	105		SW846 8260B
	ND	10.0	10.1	ug/L	101	4.0	SW846 8260B
Trichlorofluoromethane	ND	10.0	10.2	ug/L	102		SW846 8260B
	ND	10.0	10.0	ug/L	100	1.9	SW846 8260B
Acetonitrile	ND	50.0	52.1	ug/L	104		SW846 8260B
	ND	50.0	52.8	ug/L	106	1.4	SW846 8260B
Iodomethane	ND	10.0	8.56	ug/L	86		SW846 8260B
	ND	10.0	8.41	ug/L	84	1.7	SW846 8260B
Vinyl acetate	ND	10.0	8.31	ug/L	83		SW846 8260B
	ND	10.0	8.72	ug/L	87	4.8	SW846 8260B
Acrolein	ND	50.0	46.1	ug/L	92		SW846 8260B
	ND	50.0	45.0	ug/L	90	2.4	SW846 8260B
Isobutanol	ND	200	174	ug/L	87		SW846 8260B
	ND	200	175	ug/L	88	0.63	SW846 8260B
Methacrylonitrile	ND	50.0	46.6	ug/L	93		SW846 8260B
	ND	50.0	47.0	ug/L	94	0.85	SW846 8260B
1,4-Dioxane	ND	200	196	ug/L	98		SW846 8260B
	ND	200	133	ug/L	66	38	SW846 8260B
Chloroprene	ND	10.0	8.74	ug/L	87		SW846 8260B
	ND	10.0	8.81	ug/L	88	0.86	SW846 8260B
Dibromomethane	ND	10.0	10.0	ug/L	100		SW846 8260B
	ND	10.0	9.99	ug/L	100	0.26	SW846 8260B
1,2,3-Trichloropropane	ND	10.0	8.60	ug/L	86		SW846 8260B
	ND	10.0	8.51	ug/L	85	0.99	SW846 8260B
Acrylonitrile		50.0	52.0	ug/L	104		SW846 8260B
		50.0	51.8	ug/L	104	0.30	SW846 8260B
Vinyl chloride	ND	10.0	8.41	ug/L	84		SW846 8260B
	ND	10.0	8.50	ug/L	85	1.1	SW846 8260B
Acetone	ND	10.0	8.59	ug/L	86		SW846 8260B
	ND	10.0	8.75	ug/L	87	1.9	SW846 8260B

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## MATRIX SPIKE SAMPLE DATA REPORT

## GC/MS Volatiles

Client Lot #....: SL1265      Work Order #....: MR0FX1AK-MS      Matrix.....: WATER  
 MS Lot-Sample #: F2D120462-001      MR0FX1AL-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Methylene chloride	3.3	10.0	10.3	ug/L	70	T	SW846 8260B
	3.3	10.0	11.4	ug/L	81	10	SW846 8260B
Carbon disulfide	ND	10.0	10.9	ug/L	109		SW846 8260B
	ND	10.0	10.6	ug/L	106	2.8	SW846 8260B
1,1-Dichloroethane	ND	10.0	9.33	ug/L	93		SW846 8260B
	ND	10.0	9.24	ug/L	92	0.98	SW846 8260B
2-Butanone	ND	10.0	9.99	ug/L	100		SW846 8260B
	ND	10.0	10.1	ug/L	101	1.5	SW846 8260B
Chloroform	ND	10.0	9.64	ug/L	96		SW846 8260B
	ND	10.0	9.64	ug/L	96	0.03	SW846 8260B
cis-1,2-Dichloroethene	ND	10.0	9.77	ug/L	98		SW846 8260B
	ND	10.0	9.70	ug/L	97	0.69	SW846 8260B
Propionitrile	ND	50.0	46.9	ug/L	94		SW846 8260B
	ND	50.0	47.7	ug/L	95	1.6	SW846 8260B
trans-1,2-Dichloroethene	ND	10.0	9.74	ug/L	97		SW846 8260B
	ND	10.0	9.54	ug/L	95	2.1	SW846 8260B
1,1,1-Trichloroethane	ND	10.0	10.3	ug/L	103		SW846 8260B
	ND	10.0	10.2	ug/L	102	1.4	SW846 8260B
Carbon tetrachloride	ND	10.0	10.8	ug/L	108		SW846 8260B
	ND	10.0	10.6	ug/L	106	2.1	SW846 8260B
1,2-Dichloroethane	ND	10.0	9.81	ug/L	98		SW846 8260B
	ND	10.0	9.92	ug/L	99	1.1	SW846 8260B
Benzene	ND	10.0	9.52	ug/L	95		SW846 8260B
	ND	10.0	9.44	ug/L	94	0.88	SW846 8260B
Trichloroethene	ND	10.0	9.75	ug/L	98		SW846 8260B
	ND	10.0	9.88	ug/L	99	1.3	SW846 8260B
4-Methyl-2-pentanone	ND	10.0	10.2	ug/L	102		SW846 8260B
	ND	10.0	10.1	ug/L	101	1.3	SW846 8260B
1,1,2-Trichloroethane	ND	10.0	9.31	ug/L	93		SW846 8260B
	ND	10.0	9.46	ug/L	95	1.6	SW846 8260B
Tetrachloroethene	ND	10.0	10.5	ug/L	105		SW846 8260B
	ND	10.0	10.5	ug/L	105	0.09	SW846 8260B
Tetrahydrofuran	ND	50.0	46.8	ug/L	94		SW846 8260B
	ND	50.0	46.3	ug/L	93	0.98	SW846 8260B
1,4-Dichlorobenzene	ND	10.0	9.66	ug/L	97		SW846 8260B
	ND	10.0	9.69	ug/L	97	0.38	SW846 8260B
1-Butanol	ND	100	80.9	ug/L	81		SW846 8260B
	ND	100	81.4	ug/L	81	0.69	SW846 8260B
Toluene	ND	10.0	9.61	ug/L	96		SW846 8260B
	ND	10.0	9.50	ug/L	95	1.2	SW846 8260B

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## MATRIX SPIKE SAMPLE DATA REPORT

## GC/MS Volatiles

Client Lot #....: SL1265      Work Order #....: MR0FX1AK-MS      Matrix.....: WATER  
MS Lot-Sample #: F2D120462-001      MR0FX1AL-MSD

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Toluene-d8	98	(85 - 120)
	99	(85 - 120)
Dibromofluoromethane	108	(85 - 118)
	111	(85 - 118)
1,2-Dichloroethane-d4	105	(80 - 119)
	108	(80 - 119)
4-Bromofluorobenzene	89	(84 - 115)
	94	(84 - 115)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

T Spike sample recovery is outside control limits.

# **GC/MS SEMI-VOLATILES**

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KFF2

## GC/MS Semivolatiles

Lot-Sample #....: F2D170439-001    Work Order #....: MR2R61AE    Matrix.....: WATER  
 Date Sampled....: 04/13/12    Date Received...: 04/17/12  
 Prep Date.....: 04/18/12    Analysis Date...: 04/20/12  
 Prep Batch #....: 2109120  
 Dilution Factor: 1    Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Hexachloropropene	ND	100	ug/L	1.0
N-Nitro-o-toluidine	ND	20	ug/L	1.0
3-Methylphenol & 4-Methylphenol	ND	20	ug/L	2.0
Pyridine	ND	20	ug/L	2.0
N-Nitrosodimethylamine	ND	10	ug/L	2.0
2-Picoline	ND	20	ug/L	2.0
N-Nitrosomethylethylamine	ND	10	ug/L	1.0
Methyl methanesulfonate	ND	10	ug/L	1.0
Methyl parathion	ND	50	ug/L	1.0
N-Nitrosodiethylamine	ND	10	ug/L	1.1
Ethyl methanesulfonate	ND	10	ug/L	1.0
Phenol	ND	10	ug/L	2.0
Pentachloroethane	ND	50	ug/L	1.3
Aniline	ND	10	ug/L	1.3
bis(2-Chloroethyl)- ether	ND	10	ug/L	1.0
2-Chlorophenol	ND	10	ug/L	1.0
1,3-Dichlorobenzene	ND	10	ug/L	1.0
1,4-Dichlorobenzene	ND	10	ug/L	1.0
Benzyl alcohol	ND	10	ug/L	1.0
Hexachlorophene	ND	100	ug/L	10
1,2-Dichlorobenzene	ND	10	ug/L	1.0
2-Methylphenol	ND	10	ug/L	1.0
2,2'-oxybis (1-Chloropropane)	ND	10	ug/L	1.0
Acetophenone	ND	10	ug/L	1.1
4-Methylphenol	ND	10	ug/L	10
N-Nitrosopyrrolidine	ND	10	ug/L	1.0
N-Nitrosomorpholine	ND	10	ug/L	1.2
o-Toluidine	ND	20	ug/L	1.0
N-Nitrosodi-n-propyl- amine	ND	10	ug/L	1.0
Hexachloroethane	ND	10	ug/L	1.0
2-Methylnaphthalene	ND	10	ug/L	1.0
Nitrobenzene	ND	10	ug/L	1.1
N-Nitrosopiperidine	ND	10	ug/L	1.0
Isophorone	ND	10	ug/L	1.0
2-Nitrophenol	ND	10	ug/L	1.0

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## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KFF2

## GC/MS Semivolatiles

Lot-Sample #....: F2D170439-001 Work Order #....: MR2R61AE Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-Dimethylphenol	ND	10	ug/L	1.0
O,O,O-Triethylphosphoro- thioate	ND	50	ug/L	1.1
bis(2-Chloroethoxy) methane	ND	10	ug/L	1.0
alpha,alpha-Dimethylphenethyla- mine	ND	50	ug/L	22
2,4-Dichlorophenol	ND	10	ug/L	1.1
1,2,4-Trichloro- benzene	ND	10	ug/L	1.0
Naphthalene	ND	10	ug/L	1.0
2,6-Dichlorophenol	ND	10	ug/L	1.0
4-Chloroaniline	ND	10	ug/L	2.2
Hexachlorobutadiene	ND	10	ug/L	1.0
p-Phenylene diamine	ND	100	ug/L	1.0
4-Chloro-3-methylphenol	ND	10	ug/L	1.0
Safrole	ND	20	ug/L	1.0
1,2,4,5-Tetrachloro- benzene	ND	10	ug/L	1.0
Hexachlorocyclopenta- diene	ND	50	ug/L	1.0
2,4,6-Trichloro- phenol	ND	10	ug/L	1.0
2,4,5-Trichloro- phenol	ND	10	ug/L	1.0
2-Chloronaphthalene	ND	10	ug/L	1.0
Isosafrole	ND	20	ug/L	1.3
2-Nitroaniline	ND	50	ug/L	1.0
1,4-Naphthoquinone	ND	50	ug/L	2.3
Dimethyl phthalate	ND	10	ug/L	1.0
N-Nitrosodi-n-butylamine	ND	10	ug/L	1.0
1,3-Dinitrobenzene	ND	10	ug/L	1.0
Acenaphthylene	ND	10	ug/L	1.0
2,6-Dinitrotoluene	ND	10	ug/L	2.2
3-Nitroaniline	ND	50	ug/L	1.0
Acenaphthene	ND	10	ug/L	1.0
2,4-Dinitrophenol	ND	50	ug/L	2.0
4-Nitrophenol	ND	50	ug/L	2.0
Dibenzofuran	ND	10	ug/L	1.0
Pentachlorobenzene	ND	10	ug/L	1.0
2,4-Dinitrotoluene	ND	10	ug/L	1.0
1-Naphthylamine	ND	10	ug/L	1.2
2,3,4,6-Tetrachlorophenol	ND	50	ug/L	1.2

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## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KFF2

## GC/MS Semivolatiles

Lot-Sample #....: F2D170439-001 Work Order #....: MR2R61AE Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2-Naphthylamine	ND	10	ug/L	1.0
O,O-Diethyl-O-(2-pyrazinyl) ph osphorothioate	ND	50	ug/L	1.0
Diethyl phthalate	ND	10	ug/L	1.0
Fluorene	ND	10	ug/L	1.0
4-Chlorophenyl phenyl ether	ND	10	ug/L	1.0
4-Nitroaniline	ND	50	ug/L	1.0
4,6-Dinitro- 2-methylphenol	ND	50	ug/L	1.0
Diphenylamine+N-Nitrosodipheny lamine	ND	10	ug/L	1.0
Azobenzene	ND	10	ug/L	1.0
Tetraethyldithiopyro- phosphate	ND	50	ug/L	1.0
1,3,5-Trinitrobenzene	ND	50	ug/L	1.2
Diallate	ND	20	ug/L	2.0
Phorate	ND	50	ug/L	1.0
4-Bromophenyl phenyl ether	ND	10	ug/L	1.0
Phenacetin	ND	20	ug/L	1.0
Dimethoate	ND	20	ug/L	1.0
Hexachlorobenzene	ND	10	ug/L	1.0
Pentachlorophenol	ND	50	ug/L	1.3
Pentachloronitrobenzene	ND	50	ug/L	1.0
4-Aminobiphenyl	ND	50	ug/L	1.0
Pronamide	ND	20	ug/L	1.0
Disulfoton	ND	50	ug/L	1.0
Phenanthrene	ND	10	ug/L	1.0
Anthracene	ND	10	ug/L	1.0
Carbazole	ND	10	ug/L	1.0
Dinoseb	ND	20	ug/L	2.0
4-Nitroquinoline- 1-oxide	ND	100	ug/L	5.0
Parathion	ND	50	ug/L	1.0
Methapyrilene	ND	50	ug/L	1.3
Fluoranthene	ND	10	ug/L	1.0
Isodrin	ND	10	ug/L	1.0
Pyrene	ND	10	ug/L	1.0
Aramite 1	ND	20	ug/L	20
Aramite 2	ND	20	ug/L	20
p-Dimethylaminoazobenzene	ND	20	ug/L	1.0
p-Chlorobenzilate	ND	10	ug/L	1.0

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## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KFF2

## GC/MS Semivolatiles

Lot-Sample #....: F2D170439-001 Work Order #....: MR2R61AE Matrix.....: WATER

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Famphur	ND	100	ug/L	1.7
Kepone	ND	100	ug/L	20
3,3'-Dimethylbenzidine	ND	50	ug/L	2.6
Butyl benzyl phthalate	ND	10	ug/L	1.0
2-Acetylaminofluorene	ND	100	ug/L	1.0
Benzo(a)anthracene	ND	10	ug/L	1.0
3,3'-Dichlorobenzidine	ND	50	ug/L	1.3
Chrysene	ND	10	ug/L	1.0
bis(2-Ethylhexyl) phthalate	ND	10	ug/L	1.0
Di-n-butyl phthalate	ND	10	ug/L	1.0
Di-n-octyl phthalate	ND	10	ug/L	1.0
7,12-Dimethylbenz(a)- anthracene	ND	20	ug/L	1.0
Benzo(b)fluoranthene	ND	10	ug/L	1.0
Benzo(k)fluoranthene	ND	10	ug/L	1.0
Benzo(a)pyrene	ND	10	ug/L	1.0
3-Methylcholanthrene	ND	20	ug/L	1.0
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	1.0
Benzo(ghi)perylene	ND	10	ug/L	1.0
Dibenz(a,h)anthracene	ND	10	ug/L	1.0
Tributyl phosphate	ND	10	ug/L	1.0

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
2-Fluorophenol	46	(19 - 86 )
Phenol-d5	29	(10 - 71 )
Nitrobenzene-d5	76	(44 - 100)
2-Fluorobiphenyl	72	(44 - 99 )
2,4,6-Tribromophenol	92	(43 - 115)
Terphenyl-d14	91	(45 - 131)

## CH2M Hill Plateau Remediation DOE RL

B2KFF2

## GC/MS Semivolatiles

Lot-Sample #: F2D170439-001

Work Order #: MR2R61AE

Matrix: WATER

## MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED	RETENTION		UNITS
		RESULT		TIME	
Unknown		8.3 J	M	3.5208	ug/L
Unknown aldol condensate		150 J	M	3.9969	ug/L
Unknown		4.3 J	M	7.1151	ug/L
Benzoic acid, 2,4,6-trimethyl-	480-63-7	130 J	M	9.7252	ug/L

**NOTE (S) :**

M : Result was measured against nearest internal standard assuming a response factor of 1.

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KL30

## GC/MS Semivolatiles

Lot-Sample #....: F2D180412-001    Work Order #....: MR3E31AC    Matrix.....: WATER  
 Date Sampled....: 04/16/12    Date Received...: 04/18/12  
 Prep Date.....: 04/20/12    Analysis Date...: 04/25/12  
 Prep Batch #....: 2111079  
 Dilution Factor: 1    Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	10	ug/L	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	50	(19 - 86 )
Phenol-d5	32	(10 - 71 )
Nitrobenzene-d5	81	(44 - 100)
2-Fluorobiphenyl	81	(44 - 99 )
2,4,6-Tribromophenol	92	(43 - 115)
Terphenyl-d14	94	(45 - 131)



## CH2M Hill Plateau Remediation DOE RL

B2KL30

## GC/MS Semivolatiles

Lot-Sample #: F2D180412-001

Work Order #: MR3E31AC

Matrix: WATER

## MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
Unknown		16 J	M 3.3976	ug/L
Unknown aldol condensate		16 J	M 3.9645	ug/L

**NOTE (S) :**

M : Result was measured against nearest internal standard assuming a response factor of 1.

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KL50

## GC/MS Semivolatiles

Lot-Sample #....: F2D180412-002    Work Order #....: MR3E41AC    Matrix.....: WATER  
 Date Sampled....: 04/16/12    Date Received...: 04/18/12  
 Prep Date.....: 04/20/12    Analysis Date...: 04/25/12  
 Prep Batch #....: 2111079  
 Dilution Factor: 1    Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	10	ug/L	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	49	(19 - 86 )
Phenol-d5	31	(10 - 71 )
Nitrobenzene-d5	81	(44 - 100)
2-Fluorobiphenyl	82	(44 - 99 )
2,4,6-Tribromophenol	92	(43 - 115)
Terphenyl-d14	93	(45 - 131)

## CH2M Hill Plateau Remediation DOE RL

B2KL50

## GC/MS Semivolatiles

Lot-Sample #: F2D180412-002

Work Order #: MR3E41AC

Matrix: WATER

## MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
Unknown		17 J	M 3.3978	ug/L
Unknown aldol condensate		16 J	M 3.9647	ug/L

**NOTE (S) :**

M : Result was measured against nearest internal standard assuming a response factor of 1.

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KL60

## GC/MS Semivolatiles

Lot-Sample #....: F2D180412-003    Work Order #....: MR3E51AC    Matrix.....: WATER  
Date Sampled....: 04/16/12    Date Received...: 04/18/12  
Prep Date.....: 04/20/12    Analysis Date...: 04/25/12  
Prep Batch #....: 2111079  
Dilution Factor: 1    Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	10	ug/L	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	49	(19 - 86 )
Phenol-d5	31	(10 - 71 )
Nitrobenzene-d5	83	(44 - 100)
2-Fluorobiphenyl	84	(44 - 99 )
2,4,6-Tribromophenol	93	(43 - 115)
Terphenyl-d14	95	(45 - 131)



## CH2M Hill Plateau Remediation DOE RL

B2KL60

## GC/MS Semivolatiles

Lot-Sample #: F2D180412-003

Work Order #: MR3E51AC

Matrix: WATER

## MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
Unknown		7.8 J	M 3.4191	ug/L
Unknown aldol condensate		16 J	M 3.9646	ug/L

**NOTE (S) :**

M : Result was measured against nearest internal standard assuming a response factor of 1.

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KL70

## GC/MS Semivolatiles

Lot-Sample #....: F2D180412-004    Work Order #....: MR3E61AC    Matrix.....: WATER  
Date Sampled....: 04/16/12    Date Received...: 04/18/12  
Prep Date.....: 04/20/12    Analysis Date...: 04/25/12  
Prep Batch #....: 2111079  
Dilution Factor: 1    Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	10	ug/L	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	50	(19 - 86 )
Phenol-d5	32	(10 - 71 )
Nitrobenzene-d5	83	(44 - 100)
2-Fluorobiphenyl	83	(44 - 99 )
2,4,6-Tribromophenol	94	(43 - 115)
Terphenyl-d14	96	(45 - 131)

## CH2M Hill Plateau Remediation DOE RL

B2KL70

## GC/MS Semivolatiles

Lot-Sample #: F2D180412-004

Work Order #: MR3E61AC

Matrix: WATER

## MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
Unknown		24 J	M 3.3869	ug/L
Unknown aldol condensate		14 J	M 3.9592	ug/L

**NOTE (S) :**

M : Result was measured against nearest internal standard assuming a response factor of 1.

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KL81

## GC/MS Semivolatiles

Lot-Sample #....: F2D180412-005    Work Order #....: MR3E71AC    Matrix.....: WATER  
 Date Sampled...: 04/16/12    Date Received...: 04/18/12  
 Prep Date.....: 04/20/12    Analysis Date...: 04/25/12  
 Prep Batch #....: 2111079  
 Dilution Factor: 1    Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	10	ug/L	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	51	(19 - 86 )
Phenol-d5	32	(10 - 71 )
Nitrobenzene-d5	85	(44 - 100)
2-Fluorobiphenyl	86	(44 - 99 )
2,4,6-Tribromophenol	94	(43 - 115)
Terphenyl-d14	96	(45 - 131)

## CH2M Hill Plateau Remediation DOE RL

B2KL81

## GC/MS Semivolatiles

Lot-Sample #: F2D180412-005

Work Order #: MR3E71AC

Matrix: WATER

## MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
Unknown		42 J	M 3.3817	ug/L
Unknown aldol condensate		21 J	M 3.9647	ug/L

**NOTE (S) :**

M : Result was measured against nearest internal standard assuming a response factor of 1.



## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KL82

## GC/MS Semivolatiles

Lot-Sample #....: F2D180412-006      Work Order #....: MR3FA1AC      Matrix.....: WATER  
Date Sampled....: 04/16/12      Date Received...: 04/18/12  
Prep Date.....: 04/20/12      Analysis Date...: 04/25/12  
Prep Batch #....: 2111079  
Dilution Factor: 1      Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	10	ug/L	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	49	(19 - 86 )
Phenol-d5	31	(10 - 71 )
Nitrobenzene-d5	80	(44 - 100)
2-Fluorobiphenyl	82	(44 - 99 )
2,4,6-Tribromophenol	91	(43 - 115)
Terphenyl-d14	94	(45 - 131)

## CH2M Hill Plateau Remediation DOE RL

B2KL82

## GC/MS Semivolatiles

Lot-Sample #: F2D180412-006

Work Order #: MR3FA1AC

Matrix: WATER

## MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED	RETENTION		UNITS
		RESULT		TIME	
Unknown		31 J	M	3.3765	ug/L
Unknown aldol condensate		15 J	M	3.9488	ug/L
Unknown organic acid		7.5 J	M	15.924	ug/L

**NOTE (S) :**

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M : Result was measured against nearest internal standard assuming a response factor of 1.

## METHOD BLANK REPORT

## GC/MS Semivolatiles

Client Lot #....: SL1265  
 MB Lot-Sample #: F2D180000-120

Work Order #....: MR3TT1AA

Matrix.....: WATER

Analysis Date...: 04/20/12  
 Dilution Factor: 1

Prep Date.....: 04/18/12

Prep Batch #....: 2109120

PARAMETER	RESULT	REPORTING			METHOD
		LIMIT	UNITS		
N-Nitro-o-toluidine	ND	20	ug/L	SW846	8270C
Hexachloropropene	ND	100	ug/L	SW846	8270C
3-Methylphenol & 4-Methylphenol	ND	20	ug/L	SW846	8270C
Pyridine	ND	20	ug/L	SW846	8270C
N-Nitrosodimethylamine	ND	10	ug/L	SW846	8270C
2-Picoline	ND	20	ug/L	SW846	8270C
N-Nitrosomethylethylamine	ND	10	ug/L	SW846	8270C
N-Nitrosodiethylamine	ND	10	ug/L	SW846	8270C
Methyl methanesulfonate	ND	10	ug/L	SW846	8270C
Methyl parathion	ND	50	ug/L	SW846	8270C
Ethyl methanesulfonate	ND	10	ug/L	SW846	8270C
Phenol	ND	10	ug/L	SW846	8270C
Pentachloroethane	ND	50	ug/L	SW846	8270C
Aniline	ND	10	ug/L	SW846	8270C
bis(2-Chloroethyl)- ether	ND	10	ug/L	SW846	8270C
2-Chlorophenol	ND	10	ug/L	SW846	8270C
1,3-Dichlorobenzene	ND	10	ug/L	SW846	8270C
1,4-Dichlorobenzene	ND	10	ug/L	SW846	8270C
Benzyl alcohol	ND	10	ug/L	SW846	8270C
Hexachlorophene	ND	100	ug/L	SW846	8270C
1,2-Dichlorobenzene	ND	10	ug/L	SW846	8270C
2-Methylphenol	ND	10	ug/L	SW846	8270C
2,2'-oxybis (1-Chloropropane)	ND	10	ug/L	SW846	8270C
Acetophenone	ND	10	ug/L	SW846	8270C
4-Methylphenol	ND	10	ug/L	SW846	8270C
N-Nitrosopyrrolidine	ND	10	ug/L	SW846	8270C
N-Nitrosomorpholine	ND	10	ug/L	SW846	8270C
N-Nitrosodi-n-propyl- amine	ND	10	ug/L	SW846	8270C
o-Toluidine	ND	20	ug/L	SW846	8270C
Hexachloroethane	ND	10	ug/L	SW846	8270C
Nitrobenzene	ND	10	ug/L	SW846	8270C
2-Methylnaphthalene	ND	10	ug/L	SW846	8270C
N-Nitrosopiperidine	ND	10	ug/L	SW846	8270C
Isophorone	ND	10	ug/L	SW846	8270C
2-Nitrophenol	ND	10	ug/L	SW846	8270C
2,4-Dimethylphenol	ND	10	ug/L	SW846	8270C
O,O,O-Triethylphosphoro- thioate	ND	50	ug/L	SW846	8270C

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## METHOD BLANK REPORT

## GC/MS Semivolatiles

Client Lot #....: SL1265

Work Order #....: MR3TT1AA

Matrix.....: WATER

PARAMETER	RESULT	REPORTING		METHOD
		LIMIT	UNITS	
bis (2-Chloroethoxy) methane	ND	10	ug/L	SW846 8270C
alpha,alpha-Dimethylphenol	ND	50	ug/L	SW846 8270C
2,4-Dichlorophenol	ND	10	ug/L	SW846 8270C
1,2,4-Trichloro- benzene	ND	10	ug/L	SW846 8270C
Naphthalene	ND	10	ug/L	SW846 8270C
2,6-Dichlorophenol	ND	10	ug/L	SW846 8270C
4-Chloroaniline	ND	10	ug/L	SW846 8270C
Hexachlorobutadiene	ND	10	ug/L	SW846 8270C
p-Phenylene diamine	ND	100	ug/L	SW846 8270C
4-Chloro-3-methylphenol	ND	10	ug/L	SW846 8270C
Safrole	ND	20	ug/L	SW846 8270C
1,2,4,5-Tetrachloro- benzene	ND	10	ug/L	SW846 8270C
Hexachlorocyclopenta- diene	ND	50	ug/L	SW846 8270C
2,4,6-Trichloro- phenol	ND	10	ug/L	SW846 8270C
2,4,5-Trichloro- phenol	ND	10	ug/L	SW846 8270C
2-Chloronaphthalene	ND	10	ug/L	SW846 8270C
Isosafrole	ND	20	ug/L	SW846 8270C
2-Nitroaniline	ND	50	ug/L	SW846 8270C
1,4-Naphthoquinone	ND	50	ug/L	SW846 8270C
N-Nitrosodi-n-butylamine	ND	10	ug/L	SW846 8270C
Dimethyl phthalate	ND	10	ug/L	SW846 8270C
1,3-Dinitrobenzene	ND	10	ug/L	SW846 8270C
Acenaphthylene	ND	10	ug/L	SW846 8270C
2,6-Dinitrotoluene	ND	10	ug/L	SW846 8270C
3-Nitroaniline	ND	50	ug/L	SW846 8270C
Acenaphthene	ND	10	ug/L	SW846 8270C
2,4-Dinitrophenol	ND	50	ug/L	SW846 8270C
4-Nitrophenol	ND	50	ug/L	SW846 8270C
Dibenzofuran	ND	10	ug/L	SW846 8270C
Pentachlorobenzene	ND	10	ug/L	SW846 8270C
2,4-Dinitrotoluene	ND	10	ug/L	SW846 8270C
1-Naphthylamine	ND	10	ug/L	SW846 8270C
2,3,4,6-Tetrachlorophenol	ND	50	ug/L	SW846 8270C
2-Naphthylamine	ND	10	ug/L	SW846 8270C
O,O-Diethyl-O-(2-pyraziny	ND	50	ug/L	SW846 8270C
Diethyl phthalate	ND	10	ug/L	SW846 8270C
Fluorene	ND	10	ug/L	SW846 8270C
4-Chlorophenyl phenyl ether	ND	10	ug/L	SW846 8270C

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## METHOD BLANK REPORT

## GC/MS Semivolatiles

Client Lot #....: SL1265

Work Order #....: MR3TT1AA

Matrix.....: WATER

PARAMETER	RESULT	REPORTING		METHOD
		LIMIT	UNITS	
4-Nitroaniline	ND	50	ug/L	SW846 8270C
4,6-Dinitro- 2-methylphenol	ND	50	ug/L	SW846 8270C
Diphenylamine+N-Nitrosodi	ND	10	ug/L	SW846 8270C
Azobenzene	ND	10	ug/L	SW846 8270C
Tetraethyldithiopyro- phosphate	ND	50	ug/L	SW846 8270C
1,3,5-Trinitrobenzene	ND	50	ug/L	SW846 8270C
Diallate	ND	20	ug/L	SW846 8270C
Phorate	ND	50	ug/L	SW846 8270C
4-Bromophenyl phenyl ether	ND	10	ug/L	SW846 8270C
Phenacetin	ND	20	ug/L	SW846 8270C
Dimethoate	ND	20	ug/L	SW846 8270C
Hexachlorobenzene	ND	10	ug/L	SW846 8270C
Pentachlorophenol	ND	50	ug/L	SW846 8270C
Pentachloronitrobenzene	ND	50	ug/L	SW846 8270C
4-Aminobiphenyl	ND	50	ug/L	SW846 8270C
Pronamide	ND	20	ug/L	SW846 8270C
Disulfoton	ND	50	ug/L	SW846 8270C
Phenanthrene	ND	10	ug/L	SW846 8270C
Anthracene	ND	10	ug/L	SW846 8270C
Carbazole	ND	10	ug/L	SW846 8270C
Dinoseb	ND	20	ug/L	SW846 8270C
4-Nitroquinoline- 1-oxide	ND	100	ug/L	SW846 8270C
Parathion	ND	50	ug/L	SW846 8270C
Methapyrilene	ND	50	ug/L	SW846 8270C
Fluoranthene	ND	10	ug/L	SW846 8270C
Isodrin	ND	10	ug/L	SW846 8270C
Pyrene	ND	10	ug/L	SW846 8270C
Aramite 1	ND	20	ug/L	SW846 8270C
Aramite 2	ND	20	ug/L	SW846 8270C
p-Dimethylaminoazobenzene	ND	20	ug/L	SW846 8270C
p-Chlorobenzilate	ND	10	ug/L	SW846 8270C
Famphur	ND	100	ug/L	SW846 8270C
Kepone	ND	100	ug/L	SW846 8270C
3,3'-Dimethylbenzidine	ND	50	ug/L	SW846 8270C
Butyl benzyl phthalate	ND	10	ug/L	SW846 8270C
2-Acetylaminofluorene	ND	100	ug/L	SW846 8270C
Benzo(a)anthracene	ND	10	ug/L	SW846 8270C
3,3'-Dichlorobenzidine	ND	50	ug/L	SW846 8270C
Chrysene	ND	10	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	ND	10	ug/L	SW846 8270C

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## METHOD BLANK REPORT

## GC/MS Semivolatiles

Client Lot #....: SL1265

Work Order #....: MR3TT1AA

Matrix.....: WATER

PARAMETER	RESULT	REPORTING		METHOD
		LIMIT	UNITS	
Di-n-butyl phthalate	ND	10	ug/L	SW846 8270C
Di-n-octyl phthalate	ND	10	ug/L	SW846 8270C
7,12-Dimethylbenz (a) - anthracene	ND	20	ug/L	SW846 8270C
Benzo (b) fluoranthene	ND	10	ug/L	SW846 8270C
Benzo (k) fluoranthene	ND	10	ug/L	SW846 8270C
Benzo (a) pyrene	ND	10	ug/L	SW846 8270C
3-Methylcholanthrene	ND	20	ug/L	SW846 8270C
Indeno (1,2,3-cd) pyrene	ND	10	ug/L	SW846 8270C
Benzo (ghi) perylene	ND	10	ug/L	SW846 8270C
Dibenz (a,h) anthracene	ND	10	ug/L	SW846 8270C
Tributyl phosphate	ND	10	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	46	(19 - 86)
Phenol-d5	30	(10 - 71)
Nitrobenzene-d5	70	(44 - 100)
2-Fluorobiphenyl	66	(44 - 99)
2,4,6-Tribromophenol	74	(43 - 115)
Terphenyl-d14	83	(45 - 131)

**NOTE (S) :**


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Calculations are performed before rounding to avoid round-off errors in calculated results.

## CH2M Hill Plateau Remediation DOE RL

## Method Blank Report

## GC/MS Semivolatiles

Lot-Sample #: F2D180000-120 B Work Order #: MR3TT1AA Matrix: WATER

## MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
Unknown		4.1 J	M 3.6383	ug/L
Unknown aldol condensate		17 J	M 3.9699	ug/L

## NOTE (S) :

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M : Result was measured against nearest internal standard assuming a response factor of 1.

## METHOD BLANK REPORT

## GC/MS Semivolatiles

Client Lot #....: SL1265  
MB Lot-Sample #: F2D200000-079

Work Order #....: MR4VW1AA

Matrix.....: WATER

Analysis Date...: 04/25/12  
Dilution Factor: 1

Prep Date.....: 04/20/12

Prep Batch #....: 2111079

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,4-Dioxane	ND	10	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	53	(19 - 86)
Phenol-d5	35	(10 - 71)
Nitrobenzene-d5	84	(44 - 100)
2-Fluorobiphenyl	83	(44 - 99)
2,4,6-Tribromophenol	96	(43 - 115)
Terphenyl-d14	98	(45 - 131)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

## CH2M Hill Plateau Remediation DOE RL

## Method Blank Report

## GC/MS Semivolatiles

Lot-Sample #: F2D200000-079 B Work Order #: MR4VW1AA Matrix: WATER

## MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
Unknown		38 J	M 3.3815	ug/L
Unknown aldol condensate		25 J	M 3.9645	ug/L

**NOTE (S) :**

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M : Result was measured against nearest internal standard assuming a response factor of 1.

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Semivolatiles

Client Lot #....: SL1265      Work Order #....: MR3TT1AC-LCS      Matrix.....: WATER  
 LCS Lot-Sample#: F2D180000-120      MR3TT1AD-LCSD  
 Prep Date.....: 04/18/12      Analysis Date...: 04/20/12  
 Prep Batch #....: 2109120  
 Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
3-Methylphenol & 4-Methylphenol	100	62.0	ug/L	62		SW846 8270C
	100	62.1	ug/L	62	0.19	SW846 8270C
Phenol	100	29.2	ug/L	29		SW846 8270C
	100	28.9	ug/L	29	1.1	SW846 8270C
bis(2-Chloroethyl)- ether	100	69.1	ug/L	69		SW846 8270C
	100	70.4	ug/L	70	1.8	SW846 8270C
2-Chlorophenol	100	68.2	ug/L	68		SW846 8270C
	100	69.4	ug/L	69	1.6	SW846 8270C
1,3-Dichlorobenzene	100	67.8	ug/L	68		SW846 8270C
	100	67.0	ug/L	67	1.2	SW846 8270C
1,4-Dichlorobenzene	100	66.9	ug/L	67		SW846 8270C
	100	66.9	ug/L	67	0.010	SW846 8270C
1,2-Dichlorobenzene	100	68.6	ug/L	69		SW846 8270C
	100	68.5	ug/L	68	0.13	SW846 8270C
2-Methylphenol	100	60.5	ug/L	60		SW846 8270C
	100	60.8	ug/L	61	0.61	SW846 8270C
2,2'-oxybis (1-Chloropropane)	100	62.9	ug/L	63		SW846 8270C
	100	63.7	ug/L	64	1.3	SW846 8270C
N-Nitrosodi-n-propyl- amine	100	72.4	ug/L	72		SW846 8270C
	100	73.8	ug/L	74	1.9	SW846 8270C
Hexachloroethane	100	67.2	ug/L	67		SW846 8270C
	100	66.5	ug/L	66	1.2	SW846 8270C
Nitrobenzene	100	70.9	ug/L	71		SW846 8270C
	100	72.0	ug/L	72	1.5	SW846 8270C
2-Methylnaphthalene	100	71.8	ug/L	72		SW846 8270C
	100	72.5	ug/L	73	0.97	SW846 8270C
Isophorone	100	66.2	ug/L	66		SW846 8270C
	100	67.6	ug/L	68	2.1	SW846 8270C
2-Nitrophenol	100	73.8	ug/L	74		SW846 8270C
	100	75.0	ug/L	75	1.5	SW846 8270C
2,4-Dimethylphenol	100	68.9	ug/L	69		SW846 8270C
	100	70.5	ug/L	70	2.2	SW846 8270C

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## LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Semivolatiles

Client Lot #....: SL1265      Work Order #....: MR3TT1AC-LCS      Matrix.....: WATER  
 LCS Lot-Sample#: F2D180000-120      MR3TT1AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
bis (2-Chloroethoxy) methane	100	71.4	ug/L	71		SW846 8270C
	100	72.6	ug/L	73	1.6	SW846 8270C
2,4-Dichlorophenol	100	72.9	ug/L	73		SW846 8270C
	100	74.9	ug/L	75	2.8	SW846 8270C
1,2,4-Trichloro- benzene	100	73.1	ug/L	73		SW846 8270C
	100	73.4	ug/L	73	0.39	SW846 8270C
Naphthalene	100	70.9	ug/L	71		SW846 8270C
	100	71.1	ug/L	71	0.35	SW846 8270C
4-Chloroaniline	100	51.6	ug/L	52		SW846 8270C
	100	55.9	ug/L	56	8.1	SW846 8270C
Hexachlorobutadiene	100	74.8	ug/L	75		SW846 8270C
	100	75.7	ug/L	76	1.1	SW846 8270C
4-Chloro-3-methylphenol	100	70.5	ug/L	70		SW846 8270C
	100	72.2	ug/L	72	2.4	SW846 8270C
Hexachlorocyclopenta- diene	100	68.0	ug/L	68		SW846 8270C
	100	66.0	ug/L	66	3.1	SW846 8270C
2,4,6-Trichloro- phenol	100	74.7	ug/L	75		SW846 8270C
	100	76.9	ug/L	77	2.9	SW846 8270C
2,4,5-Trichloro- phenol	100	77.9	ug/L	78		SW846 8270C
	100	80.0	ug/L	80	2.7	SW846 8270C
2-Chloronaphthalene	100	72.2	ug/L	72		SW846 8270C
	100	73.5	ug/L	73	1.8	SW846 8270C
2-Nitroaniline	100	70.0	ug/L	70		SW846 8270C
	100	72.0	ug/L	72	2.9	SW846 8270C
Dimethyl phthalate	100	76.0	ug/L	76		SW846 8270C
	100	78.1	ug/L	78	2.7	SW846 8270C
Acenaphthylene	100	72.8	ug/L	73		SW846 8270C
	100	74.2	ug/L	74	1.9	SW846 8270C
2,6-Dinitrotoluene	100	75.5	ug/L	75		SW846 8270C
	100	78.1	ug/L	78	3.4	SW846 8270C
3-Nitroaniline	100	64.0	ug/L	64		SW846 8270C
	100	68.7	ug/L	69	7.0	SW846 8270C

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## LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Semivolatiles

Client Lot #....: SL1265      Work Order #....: MR3TT1AC-LCS      Matrix.....: WATER  
 LCS Lot-Sample#: F2D180000-120      MR3TT1AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Acenaphthene	100	73.2	ug/L	73		SW846 8270C
	100	75.1	ug/L	75	2.6	SW846 8270C
2,4-Dinitrophenol	100	59.7	ug/L	60		SW846 8270C
	100	71.6	ug/L	72	18	SW846 8270C
4-Nitrophenol	100	30.9	ug/L	31		SW846 8270C
	100	30.2	ug/L	30	2.2	SW846 8270C
Dibenzofuran	100	71.9	ug/L	72		SW846 8270C
	100	73.7	ug/L	74	2.5	SW846 8270C
2,4-Dinitrotoluene	100	76.1	ug/L	76		SW846 8270C
	100	77.9	ug/L	78	2.4	SW846 8270C
Diethyl phthalate	100	75.9	ug/L	76		SW846 8270C
	100	77.9	ug/L	78	2.7	SW846 8270C
Fluorene	100	75.2	ug/L	75		SW846 8270C
	100	77.5	ug/L	77	2.9	SW846 8270C
4-Chlorophenyl phenyl ether	100	77.2	ug/L	77		SW846 8270C
	100	78.7	ug/L	79	2.0	SW846 8270C
4-Nitroaniline	100	69.8	ug/L	70		SW846 8270C
	100	71.2	ug/L	71	2.0	SW846 8270C
4,6-Dinitro- 2-methylphenol	100	69.9	ug/L	70		SW846 8270C
	100	76.5	ug/L	76	9.0	SW846 8270C
Diphenylamine+N-Nitrosodip	100	88.6	ug/L	89		SW846 8270C
	100	91.0	ug/L	91	2.6	SW846 8270C
4-Bromophenyl phenyl ether	100	80.0	ug/L	80		SW846 8270C
	100	83.0	ug/L	83	3.7	SW846 8270C
Hexachlorobenzene	100	81.5	ug/L	82		SW846 8270C
	100	83.8	ug/L	84	2.7	SW846 8270C
Pentachlorophenol	100	78.2	ug/L	78		SW846 8270C
	100	80.8	ug/L	81	3.3	SW846 8270C
Phenanthrene	100	74.3	ug/L	74		SW846 8270C
	100	76.3	ug/L	76	2.6	SW846 8270C
Anthracene	100	72.7	ug/L	73		SW846 8270C
	100	74.7	ug/L	75	2.7	SW846 8270C
Carbazole	100	74.3	ug/L	74		SW846 8270C
	100	76.8	ug/L	77	3.3	SW846 8270C
Fluoranthene	100	77.5	ug/L	78		SW846 8270C
	100	79.2	ug/L	79	2.2	SW846 8270C

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## LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Semivolatiles

Client Lot #....: SL1265      Work Order #....: MR3TT1AC-LCS      Matrix.....: WATER  
 LCS Lot-Sample#: F2D180000-120      MR3TT1AD-LCSD

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Pyrene	100	75.2	ug/L	75		SW846 8270C
	100	76.1	ug/L	76	1.2	SW846 8270C
Butyl benzyl phthalate	100	73.0	ug/L	73		SW846 8270C
	100	74.1	ug/L	74	1.5	SW846 8270C
Benzo (a) anthracene	100	86.4	ug/L	86		SW846 8270C
	100	88.3	ug/L	88	2.2	SW846 8270C
3,3'-Dichlorobenzidine	100	54.6	ug/L	55		SW846 8270C
	100	56.3	ug/L	56	3.1	SW846 8270C
Chrysene	100	75.5	ug/L	75		SW846 8270C
	100	77.1	ug/L	77	2.2	SW846 8270C
bis(2-Ethylhexyl) phthalate	100	74.2	ug/L	74		SW846 8270C
	100	75.6	ug/L	76	2.0	SW846 8270C
Di-n-butyl phthalate	100	75.1	ug/L	75		SW846 8270C
	100	76.9	ug/L	77	2.3	SW846 8270C
Di-n-octyl phthalate	100	75.6	ug/L	76		SW846 8270C
	100	78.4	ug/L	78	3.5	SW846 8270C
Benzo (b) fluoranthene	100	81.1	ug/L	81		SW846 8270C
	100	81.3	ug/L	81	0.27	SW846 8270C
Benzo (k) fluoranthene	100	81.9	ug/L	82		SW846 8270C
	100	85.1	ug/L	85	3.8	SW846 8270C
Benzo (a) pyrene	100	72.8	ug/L	73		SW846 8270C
	100	75.0	ug/L	75	3.0	SW846 8270C
Indeno (1,2,3-cd) pyrene	100	84.6	ug/L	85		SW846 8270C
	100	85.6	ug/L	86	1.2	SW846 8270C
Benzo (ghi) perylene	100	82.4	ug/L	82		SW846 8270C
	100	84.9	ug/L	85	3.0	SW846 8270C
Dibenz (a,h) anthracene	100	80.9	ug/L	81		SW846 8270C
	100	83.8	ug/L	84	3.6	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	48	(29 - 62)
	48	(29 - 62)
Phenol-d5	31	(20 - 42)
	31	(20 - 42)
Nitrobenzene-d5	75	(51 - 98)
	76	(51 - 98)
2-Fluorobiphenyl	75	(50 - 93)
	76	(50 - 93)
2,4,6-Tribromophenol	84	(54 - 109)
	86	(54 - 109)

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## LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Semivolatiles

Client Lot #....: SL1265      Work Order #....: MR3TT1AC-LCS      Matrix.....: WATER  
LCS Lot-Sample#: F2D180000-120      MR3TT1AD-LCSD

	PERCENT RECOVERY	RECOVERY LIMITS
SURROGATE		
Terphenyl-d14	88	(60 - 121)
	89	(60 - 121)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters



## LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Semivolatiles

Client Lot #....: F2D180412      Work Order #....: MR4VW1AC      Matrix.....: WATER  
 LCS Lot-Sample#: F2D200000-079  
 Prep Date.....: 04/20/12      Analysis Date...: 04/25/12  
 Prep Batch #....: 2111079  
 Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Phenol	100	31.4	ug/L	31	SW846 8270C
bis(2-Chloroethyl)- ether	100	73.7	ug/L	74	SW846 8270C
2-Chlorophenol	100	74.7	ug/L	75	SW846 8270C
2-Methylphenol	100	66.9	ug/L	67	SW846 8270C
2,2'-oxybis (1-Chloropropane)	100	65.9	ug/L	66	SW846 8270C
N-Nitrosodi-n-propyl- amine	100	78.5	ug/L	78	SW846 8270C
Hexachloroethane	100	75.7	ug/L	76	SW846 8270C
Nitrobenzene	100	74.5	ug/L	74	SW846 8270C
Isophorone	100	69.8	ug/L	70	SW846 8270C
2-Nitrophenol	100	78.2	ug/L	78	SW846 8270C
2,4-Dimethylphenol	100	76.0	ug/L	76	SW846 8270C
bis(2-Chloroethoxy) methane	100	75.2	ug/L	75	SW846 8270C
2,4-Dichlorophenol	100	81.0	ug/L	81	SW846 8270C
1,2,4-Trichloro- benzene	100	81.2	ug/L	81	SW846 8270C
Naphthalene	100	76.6	ug/L	77	SW846 8270C
4-Chloroaniline	100	50.8	ug/L	51	SW846 8270C
Hexachlorobutadiene	100	82.7	ug/L	83	SW846 8270C
4-Chloro-3-methylphenol	100	79.3	ug/L	79	SW846 8270C
2-Methylnaphthalene	100	79.7	ug/L	80	SW846 8270C
Hexachlorocyclopenta- diene	100	104 a	ug/L	104	SW846 8270C
2,4,6-Trichloro- phenol	100	84.1	ug/L	84	SW846 8270C
2,4,5-Trichloro- phenol	100	87.6	ug/L	88	SW846 8270C
2-Nitroaniline	100	76.5	ug/L	77	SW846 8270C
Dimethyl phthalate	100	85.7	ug/L	86	SW846 8270C
Acenaphthylene	100	81.1	ug/L	81	SW846 8270C
2,6-Dinitrotoluene	100	84.4	ug/L	84	SW846 8270C

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## LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Semivolatiles

Client Lot #....: F2D180412  
 LCS Lot-Sample#: F2D200000-079

Work Order #....: MR4VW1AC

Matrix.....: WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
3-Nitroaniline	100	62.2	ug/L	62	SW846 8270C
Acenaphthene	100	80.1	ug/L	80	SW846 8270C
2,4-Dinitrophenol	100	85.9	ug/L	86	SW846 8270C
4-Nitrophenol	100	33.9	ug/L	34	SW846 8270C
Dibenzofuran	100	80.3	ug/L	80	SW846 8270C
2,4-Dinitrotoluene	100	85.1	ug/L	85	SW846 8270C
Diethyl phthalate	100	83.7	ug/L	84	SW846 8270C
4-Chlorophenyl phenyl ether	100	85.8	ug/L	86	SW846 8270C
Fluorene	100	83.4	ug/L	83	SW846 8270C
4-Nitroaniline	100	77.2	ug/L	77	SW846 8270C
4,6-Dinitro- 2-methylphenol	100	84.5	ug/L	84	SW846 8270C
N-Nitrosodiphenylamine	100	99.7	ug/L	100	SW846 8270C
4-Bromophenyl phenyl ether	100	88.7	ug/L	89	SW846 8270C
Hexachlorobenzene	100	91.9	ug/L	92	SW846 8270C
Pentachlorophenol	100	90.9	ug/L	91	SW846 8270C
Phenanthrene	100	81.5	ug/L	82	SW846 8270C
Anthracene	100	80.0	ug/L	80	SW846 8270C
Carbazole	100	81.6	ug/L	82	SW846 8270C
Di-n-butyl phthalate	100	81.2	ug/L	81	SW846 8270C
Fluoranthene	100	85.8	ug/L	86	SW846 8270C
Pyrene	100	79.8	ug/L	80	SW846 8270C
Butyl benzyl phthalate	100	76.3	ug/L	76	SW846 8270C
3,3'-Dichlorobenzidine	100	61.3	ug/L	61	SW846 8270C
Benzo (a) anthracene	100	94.1	ug/L	94	SW846 8270C
Chrysene	100	81.7	ug/L	82	SW846 8270C
bis (2-Ethylhexyl) phthalate	100	80.4	ug/L	80	SW846 8270C
Di-n-octyl phthalate	100	82.0	ug/L	82	SW846 8270C
Benzo (b) fluoranthene	100	86.2	ug/L	86	SW846 8270C
Benzo (k) fluoranthene	100	91.3	ug/L	91	SW846 8270C
Benzo (a) pyrene	100	83.4	ug/L	83	SW846 8270C
Indeno (1,2,3-cd) pyrene	100	94.6	ug/L	95	SW846 8270C
Dibenz (a,h) anthracene	100	91.3	ug/L	91	SW846 8270C
Benzo (ghi) perylene	100	92.6	ug/L	93	SW846 8270C

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## LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Semivolatiles

Client Lot #....: F2D180412  
 LCS Lot-Sample#: F2D200000-079

Work Order #....: MR4VW1AC

Matrix.....: WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
<b>3-Methylphenol &amp; 4-Methylphenol</b>	<b>100</b>	<b>68.6</b>	<b>ug/L</b>	<b>69</b>	<b>SW846 8270C</b>
1,2-Dichlorobenzene	100	78.0	ug/L	78	SW846 8270C
1,3-Dichlorobenzene	100	77.2	ug/L	77	SW846 8270C
1,4-Dichlorobenzene	100	76.4	ug/L	76	SW846 8270C
2-Chloronaphthalene	100	79.3	ug/L	79	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	51	(29 - 62)
Phenol-d5	33	(20 - 42)
Nitrobenzene-d5	79	(51 - 98)
2-Fluorobiphenyl	83	(50 - 93)
2,4,6-Tribromophenol	94	(54 - 109)
Terphenyl-d14	94	(60 - 121)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

## MATRIX SPIKE SAMPLE DATA REPORT

## GC/MS Semivolatiles

Client Lot #....: F2D180412      Work Order #....: MR3E51AD-MS      Matrix.....: WATER  
 MS Lot-Sample #: F2D180412-003      MR3E51AE-MSD  
 Date Sampled...: 04/16/12      Date Received...: 04/18/12  
 Prep Date.....: 04/20/12      Analysis Date...: 04/25/12  
 Prep Batch #....: 2111079  
 Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Phenol	ND	187	82.8	ug/L	44		SW846 8270C
	ND	194	89.4	ug/L	46	7.7	SW846 8270C
bis(2-Chloroethyl)- ether	ND	187	136	ug/L	73		SW846 8270C
	ND	194	147	ug/L	76	7.7	SW846 8270C
2-Chlorophenol	ND	187	144	ug/L	77		SW846 8270C
	ND	194	154	ug/L	80	7.1	SW846 8270C
2-Methylphenol	ND	187	135	ug/L	72		SW846 8270C
	ND	194	147	ug/L	76	8.2	SW846 8270C
3-Methylphenol & 4-Methylphenol	ND	187	146	ug/L	78		SW846 8270C
	ND	194	158	ug/L	82	7.8	SW846 8270C
2,2'-oxybis (1-Chloropropane)	ND	187	122	ug/L	65		SW846 8270C
	ND	194	131	ug/L	67	6.6	SW846 8270C
N-Nitrosodi-n-propyl- amine	ND	187	145	ug/L	77		SW846 8270C
	ND	194	156	ug/L	80	7.1	SW846 8270C
Hexachloroethane	ND	187	139	ug/L	74		SW846 8270C
	ND	194	154	ug/L	79	10	SW846 8270C
Nitrobenzene	ND	187	137	ug/L	73		SW846 8270C
	ND	194	150	ug/L	77	8.8	SW846 8270C
Isophorone	ND	187	128	ug/L	68		SW846 8270C
	ND	194	138	ug/L	71	7.7	SW846 8270C
2-Nitrophenol	ND	187	146	ug/L	78		SW846 8270C
	ND	194	159	ug/L	82	9.0	SW846 8270C
2,4-Dimethylphenol	ND	187	142	ug/L	76		SW846 8270C
	ND	194	154	ug/L	80	8.6	SW846 8270C
bis(2-Chloroethoxy) methane	ND	187	139	ug/L	74		SW846 8270C
	ND	194	150	ug/L	77	7.5	SW846 8270C
2,4-Dichlorophenol	ND	187	151	ug/L	81		SW846 8270C
	ND	194	164	ug/L	85	7.9	SW846 8270C

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## MATRIX SPIKE SAMPLE DATA REPORT

## GC/MS Semivolatiles

Client Lot #....: F2D180412      Work Order #....: MR3E51AD-MS      Matrix.....: WATER  
 MS Lot-Sample #: F2D180412-003      MR3E51AE-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,2,4-Trichloro- benzene	ND	187	148	ug/L	79		SW846 8270C
	ND	194	164	ug/L	85	9.8	SW846 8270C
Naphthalene	ND	187	142	ug/L	76		SW846 8270C
	ND	194	154	ug/L	79	8.3	SW846 8270C
4-Chloroaniline	ND	187	96.4	ug/L	51		SW846 8270C
	ND	194	85.4	ug/L	44	12	SW846 8270C
Hexachlorobutadiene	ND	187	153	ug/L	82		SW846 8270C
	ND	194	168	ug/L	87	9.3	SW846 8270C
4-Chloro-3-methylphenol	ND	187	152	ug/L	81		SW846 8270C
	ND	194	161	ug/L	83	5.4	SW846 8270C
2-Methylnaphthalene	ND	187	147	ug/L	79		SW846 8270C
	ND	194	160	ug/L	83	8.7	SW846 8270C
Hexachlorocyclopenta- diene	ND	187	185	ug/L	99		SW846 8270C
	ND	194	211	ug/L	109	13	SW846 8270C
2,4,6-Trichloro- phenol	ND	187	155	ug/L	83		SW846 8270C
	ND	194	168	ug/L	87	8.5	SW846 8270C
2,4,5-Trichloro- phenol	ND	187	163	ug/L	87		SW846 8270C
	ND	194	176	ug/L	91	7.2	SW846 8270C
2-Nitroaniline	ND	187	144	ug/L	77		SW846 8270C
	ND	194	154	ug/L	79	6.9	SW846 8270C
Dimethyl phthalate	ND	187	157	ug/L	84		SW846 8270C
	ND	194	170	ug/L	88	7.9	SW846 8270C
Acenaphthylene	ND	187	151	ug/L	81		SW846 8270C
	ND	194	163	ug/L	84	8.0	SW846 8270C
2,6-Dinitrotoluene	ND	187	158	ug/L	84		SW846 8270C
	ND	194	169	ug/L	87	6.6	SW846 8270C
3-Nitroaniline	ND	187	126	ug/L	67		SW846 8270C
	ND	194	124	ug/L	64	1.4	SW846 8270C
Acenaphthene	ND	187	148	ug/L	79		SW846 8270C
	ND	194	161	ug/L	83	8.8	SW846 8270C
2,4-Dinitrophenol	ND	187	150	ug/L	80		SW846 8270C
	ND	194	171	ug/L	88	13	SW846 8270C
4-Nitrophenol	ND	187	93.8	ug/L	50		SW846 8270C
	ND	194	99.4	ug/L	51	5.8	SW846 8270C

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## MATRIX SPIKE SAMPLE DATA REPORT

## GC/MS Semivolatiles

Client Lot #...: F2D180412      Work Order #...: MR3E51AD-MS      Matrix.....: WATER  
 MS Lot-Sample #: F2D180412-003      MR3E51AE-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Dibenzofuran	ND	187	149	ug/L	79		SW846 8270C
	ND	194	161	ug/L	83	7.8	SW846 8270C
2,4-Dinitrotoluene	ND	187	160	ug/L	85		SW846 8270C
	ND	194	171	ug/L	88	6.4	SW846 8270C
Diethyl phthalate	ND	187	157	ug/L	84		SW846 8270C
	ND	194	166	ug/L	86	5.5	SW846 8270C
4-Chlorophenyl phenyl ether	ND	187	160	ug/L	86		SW846 8270C
	ND	194	172	ug/L	89	7.1	SW846 8270C
Fluorene	ND	187	155	ug/L	83		SW846 8270C
	ND	194	167	ug/L	86	7.4	SW846 8270C
4-Nitroaniline	ND	187	148	ug/L	79		SW846 8270C
	ND	194	148	ug/L	76	0.0	SW846 8270C
4,6-Dinitro- 2-methylphenol	ND	187	153	ug/L	82		SW846 8270C
	ND	194	170	ug/L	88	10	SW846 8270C
N-Nitrosodiphenylamine	ND	187	184	ug/L	98		SW846 8270C
	ND	194	201	ug/L	104	8.7	SW846 8270C
4-Bromophenyl phenyl ether	ND	187	165	ug/L	88		SW846 8270C
	ND	194	180	ug/L	93	8.8	SW846 8270C
Hexachlorobenzene	ND	187	170	ug/L	91		SW846 8270C
	ND	194	186	ug/L	96	8.8	SW846 8270C
Pentachlorophenol	ND	187	170	ug/L	91		SW846 8270C
	ND	194	185	ug/L	96	8.4	SW846 8270C
Phenanthrene	ND	187	152	ug/L	81		SW846 8270C
	ND	194	163	ug/L	84	7.2	SW846 8270C
Anthracene	ND	187	150	ug/L	80		SW846 8270C
	ND	194	162	ug/L	83	7.6	SW846 8270C
Carbazole	ND	187	154	ug/L	82		SW846 8270C
	ND	194	162	ug/L	84	5.6	SW846 8270C
Di-n-butyl phthalate	ND	187	152	ug/L	81		SW846 8270C
	ND	194	164	ug/L	84	7.0	SW846 8270C
Fluoranthene	ND	187	160	ug/L	86		SW846 8270C
	ND	194	174	ug/L	90	8.1	SW846 8270C
Pyrene	ND	187	148	ug/L	79		SW846 8270C
	ND	194	158	ug/L	81	6.2	SW846 8270C
Butyl benzyl phthalate	ND	187	143	ug/L	77		SW846 8270C
	ND	194	153	ug/L	79	6.5	SW846 8270C

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## MATRIX SPIKE SAMPLE DATA REPORT

## GC/MS Semivolatiles

Client Lot #...: F2D180412      Work Order #...: MR3E51AD-MS      Matrix.....: WATER  
 MS Lot-Sample #: F2D180412-003      MR3E51AE-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
3,3'-Dichlorobenzidine	ND	187	116	ug/L	62		SW846 8270C
	ND	194	112	ug/L	58	3.6	SW846 8270C
Benzo (a) anthracene	ND	187	176	ug/L	94		SW846 8270C
	ND	194	188	ug/L	97	6.7	SW846 8270C
Chrysene	ND	187	153	ug/L	82		SW846 8270C
	ND	194	162	ug/L	83	5.5	SW846 8270C
bis (2-Ethylhexyl) phthalate	ND	187	146	ug/L	78		SW846 8270C
	ND	194	156	ug/L	80	6.2	SW846 8270C
Di-n-octyl phthalate	ND	187	152	ug/L	81		SW846 8270C
	ND	194	161	ug/L	83	6.0	SW846 8270C
Benzo (b) fluoranthene	ND	187	166	ug/L	89		SW846 8270C
	ND	194	176	ug/L	91	5.5	SW846 8270C
Benzo (k) fluoranthene	ND	187	164	ug/L	88		SW846 8270C
	ND	194	179	ug/L	92	8.7	SW846 8270C
Benzo (a) pyrene	ND	187	157	ug/L	84		SW846 8270C
	ND	194	168	ug/L	87	7.3	SW846 8270C
Indeno (1,2,3-cd) pyrene	ND	187	180	ug/L	96		SW846 8270C
	ND	194	196	ug/L	101	8.3	SW846 8270C
Dibenz (a,h) anthracene	ND	187	170	ug/L	91		SW846 8270C
	ND	194	184	ug/L	95	7.6	SW846 8270C
Benzo (ghi) perylene	ND	187	173	ug/L	93		SW846 8270C
	ND	194	188	ug/L	97	8.1	SW846 8270C
1,2-Dichlorobenzene	ND	187	144	ug/L	77		SW846 8270C
	ND	194	156	ug/L	80	7.7	SW846 8270C
1,3-Dichlorobenzene	ND	187	142	ug/L	76		SW846 8270C
	ND	194	154	ug/L	80	8.6	SW846 8270C
1,4-Dichlorobenzene	ND	187	141	ug/L	75		SW846 8270C
	ND	194	154	ug/L	79	8.6	SW846 8270C
2-Chloronaphthalene	ND	187	147	ug/L	78		SW846 8270C
	ND	194	160	ug/L	83	8.7	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	63	(19 - 86)
	65	(19 - 86)
Phenol-d5	47	(10 - 71)
	50	(10 - 71)
Nitrobenzene-d5	78	(44 - 100)
	81	(44 - 100)

(Continued on next page)

## MATRIX SPIKE SAMPLE DATA REPORT

## GC/MS Semivolatiles

Client Lot #...: F2D180412      Work Order #...: MR3E51AD-MS      Matrix.....: WATER  
MS Lot-Sample #: F2D180412-003      MR3E51AE-MSD

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorobiphenyl	83	(44 - 99)
	86	(44 - 99)
2,4,6-Tribromophenol	95	(43 - 115)
	100	(43 - 115)
Terphenyl-d14	94	(45 - 131)
	96	(45 - 131)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

# Phenols

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KK55

## GC Semivolatiles

Lot-Sample #....: F2D170442-001    Work Order #....: MR2TE1AC    Matrix.....: WATER  
 Date Sampled....: 04/13/12    Date Received...: 04/17/12  
 Prep Date.....: 04/19/12    Analysis Date...: 04/24/12  
 Prep Batch #....: 2110096  
 Dilution Factor: 1    Method.....: SW846 8040A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
2-Chlorophenol	ND	5.0	ug/L	2.2
4-Chloro-3-methylphenol	ND	5.0	ug/L	2.4
3-Methylphenol & 4-Methylphenol	ND	5.0	ug/L	2.2
2-Methylphenol	ND	5.0	ug/L	2.2
2,4-Dichlorophenol	ND	5.0	ug/L	2.1
2,6-Dichlorophenol	ND	5.0	ug/L	2.1
2,4-Dimethylphenol	ND	5.0	ug/L	2.1
2,4-Dinitrophenol	ND	5.0	ug/L	2.4
4,6-Dinitro- 2-methylphenol	ND	5.0	ug/L	2.2
Dinoseb	ND	5.0	ug/L	2.4
2-Nitrophenol	ND	5.0	ug/L	2.3
4-Nitrophenol	ND	5.0	ug/L	2.2
Pentachlorophenol	ND	5.0	ug/L	2.4
Phenol	ND	5.0	ug/L	2.3
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	2.0
2,4,5-Trichloro- phenol	ND	5.0	ug/L	2.2
2,4,6-Trichloro- phenol	ND	5.0	ug/L	2.2
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
2,4,6-Tribromophenol	91		(54 - 139)	
2-Fluorophenol	79		(34 - 121)	

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KK67

## GC Semivolatiles

Lot-Sample #....: F2D170442-002    Work Order #....: MR2TG1AC    Matrix.....: WATER  
 Date Sampled....: 04/12/12    Date Received...: 04/17/12  
 Prep Date.....: 04/19/12    Analysis Date...: 04/24/12  
 Prep Batch #....: 2110096  
 Dilution Factor: 1    Method.....: SW846 8040A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
2-Chlorophenol	ND	5.0	ug/L	2.2
4-Chloro-3-methylphenol	ND	5.0	ug/L	2.4
3-Methylphenol & 4-Methylphenol	ND	5.0	ug/L	2.2
2-Methylphenol	ND	5.0	ug/L	2.2
2,4-Dichlorophenol	ND	5.0	ug/L	2.1
2,6-Dichlorophenol	ND	5.0	ug/L	2.1
2,4-Dimethylphenol	ND	5.0	ug/L	2.1
2,4-Dinitrophenol	ND	5.0	ug/L	2.4
4,6-Dinitro- 2-methylphenol	ND	5.0	ug/L	2.2
Dinoseb	ND	5.0	ug/L	2.4
2-Nitrophenol	ND	5.0	ug/L	2.3
4-Nitrophenol	ND	5.0	ug/L	2.2
Pentachlorophenol	ND	5.0	ug/L	2.4
Phenol	ND	5.0	ug/L	2.3
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	2.0
2,4,5-Trichloro- phenol	ND	5.0	ug/L	2.2
2,4,6-Trichloro- phenol	ND	5.0	ug/L	2.2
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
2,4,6-Tribromophenol	90		(54 - 139)	
2-Fluorophenol	77		(34 - 121)	



## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KK60

## GC Semivolatiles

Lot-Sample #....: F2D170442-003    Work Order #....: MR2TH1AC    Matrix.....: WATER  
 Date Sampled....: 04/13/12    Date Received...: 04/17/12  
 Prep Date.....: 04/19/12    Analysis Date...: 04/24/12  
 Prep Batch #....: 2110096  
 Dilution Factor: 1    Method.....: SW846 8040A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
2-Chlorophenol	ND	5.0	ug/L	2.2
4-Chloro-3-methylphenol	ND	5.0	ug/L	2.4
3-Methylphenol & 4-Methylphenol	ND	5.0	ug/L	2.2
2-Methylphenol	ND	5.0	ug/L	2.2
2,4-Dichlorophenol	ND	5.0	ug/L	2.1
2,6-Dichlorophenol	ND	5.0	ug/L	2.1
2,4-Dimethylphenol	ND	5.0	ug/L	2.1
2,4-Dinitrophenol	ND	5.0	ug/L	2.4
4,6-Dinitro- 2-methylphenol	ND	5.0	ug/L	2.2
Dinoseb	ND	5.0	ug/L	2.4
2-Nitrophenol	ND	5.0	ug/L	2.3
4-Nitrophenol	ND	5.0	ug/L	2.2
Pentachlorophenol	ND	5.0	ug/L	2.4
Phenol	ND	5.0	ug/L	2.3
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	2.0
2,4,5-Trichloro- phenol	ND	5.0	ug/L	2.2
2,4,6-Trichloro- phenol	ND	5.0	ug/L	2.2
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
2,4,6-Tribromophenol	83		(54 - 139)	
2-Fluorophenol	71		(34 - 121)	

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KK12

## GC Semivolatiles

Lot-Sample #....: F2D170442-004    Work Order #....: MR2TJ1AC    Matrix.....: WATER  
 Date Sampled....: 04/13/12    Date Received...: 04/17/12  
 Prep Date.....: 04/19/12    Analysis Date...: 04/24/12  
 Prep Batch #....: 2110096  
 Dilution Factor: 1    Method.....: SW846 8040A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
2-Chlorophenol	ND	5.0	ug/L	2.2
4-Chloro-3-methylphenol	ND	5.0	ug/L	2.4
3-Methylphenol & 4-Methylphenol	ND	5.0	ug/L	2.2
2-Methylphenol	ND	5.0	ug/L	2.2
2,4-Dichlorophenol	ND	5.0	ug/L	2.1
2,6-Dichlorophenol	ND	5.0	ug/L	2.1
2,4-Dimethylphenol	ND	5.0	ug/L	2.1
2,4-Dinitrophenol	ND	5.0	ug/L	2.4
4,6-Dinitro- 2-methylphenol	ND	5.0	ug/L	2.2
Dinoseb	ND	5.0	ug/L	2.4
2-Nitrophenol	ND	5.0	ug/L	2.3
4-Nitrophenol	ND	5.0	ug/L	2.2
Pentachlorophenol	ND	5.0	ug/L	2.4
Phenol	ND	5.0	ug/L	2.3
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	2.0
2,4,5-Trichloro- phenol	ND	5.0	ug/L	2.2
2,4,6-Trichloro- phenol	ND	5.0	ug/L	2.2
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
2,4,6-Tribromophenol	91		(54 - 139)	
2-Fluorophenol	73		(34 - 121)	

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KKH1

## GC Semivolatiles

Lot-Sample #....: F2D170442-005    Work Order #....: MR2TK1AC    Matrix.....: WATER  
 Date Sampled....: 04/13/12    Date Received...: 04/17/12  
 Prep Date.....: 04/19/12    Analysis Date...: 04/24/12  
 Prep Batch #....: 2110096  
 Dilution Factor: 1    Method.....: SW846 8040A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
2-Chlorophenol	ND	5.0	ug/L	2.2
4-Chloro-3-methylphenol	ND	5.0	ug/L	2.4
3-Methylphenol & 4-Methylphenol	ND	5.0	ug/L	2.2
2-Methylphenol	ND	5.0	ug/L	2.2
2,4-Dichlorophenol	ND	5.0	ug/L	2.1
2,6-Dichlorophenol	ND	5.0	ug/L	2.1
2,4-Dimethylphenol	ND	5.0	ug/L	2.1
2,4-Dinitrophenol	ND	5.0	ug/L	2.4
4,6-Dinitro- 2-methylphenol	ND	5.0	ug/L	2.2
Dinoseb	ND	5.0	ug/L	2.4
2-Nitrophenol	ND	5.0	ug/L	2.3
4-Nitrophenol	ND	5.0	ug/L	2.2
Pentachlorophenol	ND	5.0	ug/L	2.4
Phenol	ND	5.0	ug/L	2.3
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	2.0
2,4,5-Trichloro- phenol	ND	5.0	ug/L	2.2
2,4,6-Trichloro- phenol	ND	5.0	ug/L	2.2
SURROGATE	PERCENT RECOVERY	RECOVERY		
		LIMITS		
2,4,6-Tribromophenol	82	(54 - 139)		
2-Fluorophenol	75	(34 - 121)		

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KK82

## GC Semivolatiles

Lot-Sample #....: F2D170442-006    Work Order #....: MR2TL1AC    Matrix.....: WATER  
 Date Sampled....: 04/13/12    Date Received...: 04/17/12  
 Prep Date.....: 04/19/12    Analysis Date...: 04/24/12  
 Prep Batch #....: 2110096  
 Dilution Factor: 1    Method.....: SW846 8040A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
2-Chlorophenol	ND	5.0	ug/L	2.2
4-Chloro-3-methylphenol	ND	5.0	ug/L	2.4
3-Methylphenol & 4-Methylphenol	ND	5.0	ug/L	2.2
2-Methylphenol	ND	5.0	ug/L	2.2
2,4-Dichlorophenol	ND	5.0	ug/L	2.1
2,6-Dichlorophenol	ND	5.0	ug/L	2.1
2,4-Dimethylphenol	ND	5.0	ug/L	2.1
2,4-Dinitrophenol	ND	5.0	ug/L	2.4
4,6-Dinitro- 2-methylphenol	ND	5.0	ug/L	2.2
Dinoseb	ND	5.0	ug/L	2.4
2-Nitrophenol	ND	5.0	ug/L	2.3
4-Nitrophenol	ND	5.0	ug/L	2.2
Pentachlorophenol	ND	5.0	ug/L	2.4
Phenol	ND	5.0	ug/L	2.3
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	2.0
2,4,5-Trichloro- phenol	ND	5.0	ug/L	2.2
2,4,6-Trichloro- phenol	ND	5.0	ug/L	2.2
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
2,4,6-Tribromophenol	90		(54 - 139)	
2-Fluorophenol	76		(34 - 121)	

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KKH0

## GC Semivolatiles

Lot-Sample #....: F2D170442-007    Work Order #....: MR2TM1AC    Matrix.....: WATER  
 Date Sampled....: 04/13/12    Date Received...: 04/17/12  
 Prep Date.....: 04/19/12    Analysis Date...: 04/24/12  
 Prep Batch #....: 2110096  
 Dilution Factor: 1    Method.....: SW846 8040A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
2-Chlorophenol	ND	5.0	ug/L	2.2
4-Chloro-3-methylphenol	ND	5.0	ug/L	2.4
3-Methylphenol & 4-Methylphenol	ND	5.0	ug/L	2.2
2-Methylphenol	ND	5.0	ug/L	2.2
2,4-Dichlorophenol	ND	5.0	ug/L	2.1
2,6-Dichlorophenol	ND	5.0	ug/L	2.1
2,4-Dimethylphenol	ND	5.0	ug/L	2.1
2,4-Dinitrophenol	ND	5.0	ug/L	2.4
4,6-Dinitro- 2-methylphenol	ND	5.0	ug/L	2.2
Dinoseb	ND	5.0	ug/L	2.4
2-Nitrophenol	ND	5.0	ug/L	2.3
4-Nitrophenol	ND	5.0	ug/L	2.2
Pentachlorophenol	ND	5.0	ug/L	2.4
Phenol	ND	5.0	ug/L	2.3
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	2.0
2,4,5-Trichloro- phenol	ND	5.0	ug/L	2.2
2,4,6-Trichloro- phenol	ND	5.0	ug/L	2.2
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
2,4,6-Tribromophenol	95		(54 - 139)	
2-Fluorophenol	77		(34 - 121)	



## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KK17

## GC Semivolatiles

Lot-Sample #....: F2D170442-008    Work Order #....: MR2TN1AC    Matrix.....: WATER  
 Date Sampled...: 04/12/12    Date Received...: 04/17/12  
 Prep Date.....: 04/19/12    Analysis Date...: 04/24/12  
 Prep Batch #....: 2110096  
 Dilution Factor: 1    Method.....: SW846 8040A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
2-Chlorophenol	ND	5.0	ug/L	2.2
4-Chloro-3-methylphenol	ND	5.0	ug/L	2.4
3-Methylphenol & 4-Methylphenol	ND	5.0	ug/L	2.2
2-Methylphenol	ND	5.0	ug/L	2.2
2,4-Dichlorophenol	ND	5.0	ug/L	2.1
2,6-Dichlorophenol	ND	5.0	ug/L	2.1
2,4-Dimethylphenol	ND	5.0	ug/L	2.1
2,4-Dinitrophenol	ND	5.0	ug/L	2.4
4,6-Dinitro- 2-methylphenol	ND	5.0	ug/L	2.2
Dinoseb	ND	5.0	ug/L	2.4
2-Nitrophenol	ND	5.0	ug/L	2.3
4-Nitrophenol	ND	5.0	ug/L	2.2
Pentachlorophenol	ND	5.0	ug/L	2.4
Phenol	ND	5.0	ug/L	2.3
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	2.0
2,4,5-Trichloro- phenol	ND	5.0	ug/L	2.2
2,4,6-Trichloro- phenol	ND	5.0	ug/L	2.2
SURROGATE	PERCENT RECOVERY	RECOVERY		
		LIMITS		
2,4,6-Tribromophenol	93	(54 - 139)		
2-Fluorophenol	78	(34 - 121)		

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KK02

## GC Semivolatiles

Lot-Sample #....: F2D170442-009    Work Order #....: MR2TP1AC    Matrix.....: WATER  
 Date Sampled....: 04/12/12    Date Received...: 04/17/12  
 Prep Date.....: 04/19/12    Analysis Date...: 04/25/12  
 Prep Batch #....: 2110096  
 Dilution Factor: 1    Method.....: SW846 8040A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
2-Chlorophenol	ND	5.0	ug/L	2.2
4-Chloro-3-methylphenol	ND	5.0	ug/L	2.4
3-Methylphenol & 4-Methylphenol	ND	5.0	ug/L	2.2
2-Methylphenol	ND	5.0	ug/L	2.2
2,4-Dichlorophenol	ND	5.0	ug/L	2.1
2,6-Dichlorophenol	ND	5.0	ug/L	2.1
2,4-Dimethylphenol	ND	5.0	ug/L	2.1
2,4-Dinitrophenol	ND	5.0	ug/L	2.4
4,6-Dinitro- 2-methylphenol	ND	5.0	ug/L	2.2
Dinoseb	ND	5.0	ug/L	2.4
2-Nitrophenol	ND	5.0	ug/L	2.3
4-Nitrophenol	ND	5.0	ug/L	2.2
Pentachlorophenol	ND	5.0	ug/L	2.4
Phenol	ND	5.0	ug/L	2.3
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	2.0
2,4,5-Trichloro- phenol	ND	5.0	ug/L	2.2
2,4,6-Trichloro- phenol	ND	5.0	ug/L	2.2
SURROGATE	PERCENT RECOVERY	RECOVERY		
		LIMITS		
2,4,6-Tribromophenol	90	(54 - 139)		
2-Fluorophenol	76	(34 - 121)		

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KK34

## GC Semivolatiles

Lot-Sample #....: F2D170442-010    Work Order #....: MR2TQ1AC    Matrix.....: WATER  
 Date Sampled....: 04/13/12    Date Received...: 04/17/12  
 Prep Date.....: 04/19/12    Analysis Date...: 04/25/12  
 Prep Batch #....: 2110096  
 Dilution Factor: 1    Method.....: SW846 8040A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
2-Chlorophenol	ND	5.0	ug/L	2.2
4-Chloro-3-methylphenol	ND	5.0	ug/L	2.4
3-Methylphenol & 4-Methylphenol	ND	5.0	ug/L	2.2
2-Methylphenol	ND	5.0	ug/L	2.2
2,4-Dichlorophenol	ND	5.0	ug/L	2.1
2,6-Dichlorophenol	ND	5.0	ug/L	2.1
2,4-Dimethylphenol	ND	5.0	ug/L	2.1
2,4-Dinitrophenol	ND	5.0	ug/L	2.4
4,6-Dinitro- 2-methylphenol	ND	5.0	ug/L	2.2
Dinoseb	ND	5.0	ug/L	2.4
2-Nitrophenol	ND	5.0	ug/L	2.3
4-Nitrophenol	ND	5.0	ug/L	2.2
Pentachlorophenol	ND	5.0	ug/L	2.4
Phenol	ND	5.0	ug/L	2.3
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	2.0
2,4,5-Trichloro- phenol	ND	5.0	ug/L	2.2
2,4,6-Trichloro- phenol	ND	5.0	ug/L	2.2
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
2,4,6-Tribromophenol	95		(54 - 139)	
2-Fluorophenol	80		(34 - 121)	

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KK39

## GC Semivolatiles

Lot-Sample #....: F2D170442-011    Work Order #....: MR2TR1AC    Matrix.....: WATER  
 Date Sampled....: 04/13/12    Date Received...: 04/17/12  
 Prep Date.....: 04/19/12    Analysis Date...: 04/25/12  
 Prep Batch #....: 2110096  
 Dilution Factor: 1    Method.....: SW846 8040A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
2-Chlorophenol	ND	5.0	ug/L	2.2
4-Chloro-3-methylphenol	ND	5.0	ug/L	2.4
3-Methylphenol & 4-Methylphenol	ND	5.0	ug/L	2.2
2-Methylphenol	ND	5.0	ug/L	2.2
2,4-Dichlorophenol	ND	5.0	ug/L	2.1
2,6-Dichlorophenol	ND	5.0	ug/L	2.1
2,4-Dimethylphenol	ND	5.0	ug/L	2.1
2,4-Dinitrophenol	ND	5.0	ug/L	2.4
4,6-Dinitro- 2-methylphenol	ND	5.0	ug/L	2.2
Dinoseb	ND	5.0	ug/L	2.4
2-Nitrophenol	ND	5.0	ug/L	2.3
4-Nitrophenol	ND	5.0	ug/L	2.2
Pentachlorophenol	ND	5.0	ug/L	2.4
Phenol	ND	5.0	ug/L	2.3
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	2.0
2,4,5-Trichloro- phenol	ND	5.0	ug/L	2.2
2,4,6-Trichloro- phenol	ND	5.0	ug/L	2.2
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
2,4,6-Tribromophenol	3.7 *		(54 - 139)	
2-Fluorophenol	2.3 *		(34 - 121)	

**NOTE (S) :**

\* Surrogate recovery is outside stated control limits.

## METHOD BLANK REPORT

## GC Semivolatiles

Client Lot #...: SL1265  
 MB Lot-Sample #: F2D190000-096

Work Order #...: MR3591AA

Matrix.....: WATER

Analysis Date...: 04/24/12  
 Dilution Factor: 1

Prep Date.....: 04/19/12

Prep Batch #...: 2110096

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	METHOD
2-Chlorophenol	ND	5.0	ug/L	SW846 8040A
4-Chloro-3-methylphenol	ND	5.0	ug/L	SW846 8040A
3-Methylphenol & 4-Methylphenol	ND	5.0	ug/L	SW846 8040A
2-Methylphenol	ND	5.0	ug/L	SW846 8040A
2,4-Dichlorophenol	ND	5.0	ug/L	SW846 8040A
2,6-Dichlorophenol	ND	5.0	ug/L	SW846 8040A
2,4-Dimethylphenol	ND	5.0	ug/L	SW846 8040A
2,4-Dinitrophenol	ND	5.0	ug/L	SW846 8040A
4,6-Dinitro- 2-methylphenol	ND	5.0	ug/L	SW846 8040A
Dinoseb	ND	5.0	ug/L	SW846 8040A
2-Nitrophenol	ND	5.0	ug/L	SW846 8040A
4-Nitrophenol	ND	5.0	ug/L	SW846 8040A
Pentachlorophenol	ND	5.0	ug/L	SW846 8040A
Phenol	ND	5.0	ug/L	SW846 8040A
2,3,4,6-Tetrachlorophenol	ND	5.0	ug/L	SW846 8040A
2,4,5-Trichloro- phenol	ND	5.0	ug/L	SW846 8040A
2,4,6-Trichloro- phenol	ND	5.0	ug/L	SW846 8040A
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
2,4,6-Tribromophenol	75	(54 - 139)		
2-Fluorophenol	88	(34 - 121)		

## NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.



## LABORATORY CONTROL SAMPLE DATA REPORT

## GC Semivolatiles

Client Lot #....: SL1265      Work Order #....: MR3591AC      Matrix.....: WATER  
 LCS Lot-Sample#: F2D190000-096  
 Prep Date.....: 04/19/12      Analysis Date...: 04/24/12  
 Prep Batch #....: 2110096  
 Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
2-Chlorophenol	100	82.0	ug/L	82	SW846 8040A
4-Chloro-3-methylphenol	100	92.4	ug/L	92	SW846 8040A
3-Methylphenol & 4-Methylphenol	100	86.0	ug/L	86	SW846 8040A
2-Methylphenol	100	84.5	ug/L	85	SW846 8040A
2,4-Dichlorophenol	100	89.6	ug/L	90	SW846 8040A
2,6-Dichlorophenol	100	86.1	ug/L	86	SW846 8040A
2,4-Dimethylphenol	100	85.0	ug/L	85	SW846 8040A
2,4-Dinitrophenol	100	90.2	ug/L	90	SW846 8040A
4,6-Dinitro- 2-methylphenol	100	106	ug/L	106	SW846 8040A
Dinoseb	100	94.0	ug/L	94	SW846 8040A
2-Nitrophenol	100	89.1	ug/L	89	SW846 8040A
4-Nitrophenol	100	99.4	ug/L	99	SW846 8040A
Pentachlorophenol	100	106	ug/L	106	SW846 8040A
Phenol	100	85.4	ug/L	85	SW846 8040A
2,3,4,6-Tetrachlorophenol	100	92.5	ug/L	92	SW846 8040A
2,4,5-Trichloro- phenol	100	95.0	ug/L	95	SW846 8040A
2,4,6-Trichloro- phenol	100	97.2	ug/L	97	SW846 8040A
SURROGATE		PERCENT RECOVERY	RECOVERY LIMITS		
2,4,6-Tribromophenol		99	(43 - 140)		
2-Fluorophenol		83	(38 - 122)		

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## MATRIX SPIKE SAMPLE DATA REPORT

## GC Semivolatiles

Client Lot #....: SL1265      Work Order #....: MR2TE1AD-MS      Matrix.....: WATER  
 MS Lot-Sample #: F2D170442-001      MR2TE1AE-MSD  
 Date Sampled...: 04/13/12      Date Received...: 04/17/12  
 Prep Date.....: 04/19/12      Analysis Date...: 04/24/12  
 Prep Batch #....: 2110096  
 Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
2-Chlorophenol	ND	193	160	ug/L	83		SW846 8040A
	ND	189	151	ug/L	80	5.7	SW846 8040A
4-Chloro-3-methylphenol	ND	193	179	ug/L	93		SW846 8040A
	ND	189	169	ug/L	89	5.6	SW846 8040A
3-Methylphenol & 4-Methylphenol	ND	193	168	ug/L	87		SW846 8040A
	ND	189	159	ug/L	84	5.1	SW846 8040A
2-Methylphenol	ND	193	165	ug/L	85		SW846 8040A
	ND	189	157	ug/L	83	4.9	SW846 8040A
2,4-Dichlorophenol	ND	193	174	ug/L	90		SW846 8040A
	ND	189	166	ug/L	88	5.0	SW846 8040A
2,6-Dichlorophenol	ND	193	168	ug/L	87		SW846 8040A
	ND	189	160	ug/L	85	4.7	SW846 8040A
2,4-Dimethylphenol	ND	193	166	ug/L	86		SW846 8040A
	ND	189	158	ug/L	84	4.8	SW846 8040A
2,4-Dinitrophenol	ND	193	176	ug/L	91		SW846 8040A
	ND	189	164	ug/L	87	6.8	SW846 8040A
4,6-Dinitro- 2-methylphenol	ND	193	207	ug/L	107		SW846 8040A
	ND	189	187	ug/L	99	10	SW846 8040A
Dinoseb	ND	193	184	ug/L	95		SW846 8040A
	ND	189	164	ug/L	87	12	SW846 8040A
2-Nitrophenol	ND	193	174	ug/L	90		SW846 8040A
	ND	189	165	ug/L	87	5.1	SW846 8040A
4-Nitrophenol	ND	193	197	ug/L	102		SW846 8040A
	ND	189	177	ug/L	93	11	SW846 8040A
Pentachlorophenol	ND	193	209	ug/L	108		SW846 8040A
	ND	189	188	ug/L	99	11	SW846 8040A
Phenol	ND	193	167	ug/L	86		SW846 8040A
	ND	189	157	ug/L	83	6.2	SW846 8040A
2,3,4,6-Tetrachlorophenol	ND	193	181	ug/L	93		SW846 8040A
	ND	189	166	ug/L	88	8.4	SW846 8040A
2,4,5-Trichloro- phenol	ND	193	184	ug/L	95		SW846 8040A
	ND	189	173	ug/L	92	6.1	SW846 8040A

(Continued on next page)

## MATRIX SPIKE SAMPLE DATA REPORT

## GC Semivolatiles

Client Lot #...: SL1265      Work Order #...: MR2TE1AD-MS      Matrix.....: WATER  
 MS Lot-Sample #: F2D170442-001      MR2TE1AE-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
<b>2,4,6-Trichloro-phenol</b>	<b>ND</b>	<b>193</b>	<b>191</b>	<b>ug/L</b>	<b>99</b>		<b>SW846 8040A</b>
	<b>ND</b>	<b>189</b>	<b>180</b>	<b>ug/L</b>	<b>95</b>	<b>6.2</b>	<b>SW846 8040A</b>

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	99	(54 - 139)
	92	(54 - 139)
2-Fluorophenol	83	(34 - 121)
	79	(34 - 121)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

# PESTICIDES

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KFF2

## GC Semivolatiles

Lot-Sample #....: F2D170439-001    Work Order #....: MR2R61AC    Matrix.....: WATER  
 Date Sampled....: 04/13/12    Date Received...: 04/17/12  
 Prep Date.....: 04/18/12    Analysis Date...: 04/24/12  
 Prep Batch #....: 2109122  
 Dilution Factor: 1    Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
<b>Aldrin</b>	<b>0.025 J, PG</b>	<b>0.050</b>	<b>ug/L</b>	<b>0.010</b>
alpha-BHC	ND	0.050	ug/L	0.010
<b>beta-BHC</b>	<b>0.45 PG</b>	<b>0.050</b>	<b>ug/L</b>	<b>0.013</b>
delta-BHC	ND	0.050	ug/L	0.010
gamma-BHC (Lindane)	ND	0.050	ug/L	0.010
Chlordane (technical)	ND	0.50	ug/L	0.23
4,4'-DDD	ND	0.050	ug/L	0.010
4,4'-DDE	ND	0.050	ug/L	0.010
4,4'-DDT	ND	0.050	ug/L	0.010
Dieldrin	ND	0.050	ug/L	0.010
Endosulfan I	ND	0.050	ug/L	0.010
Endosulfan II	ND	0.050	ug/L	0.010
Endosulfan sulfate	ND	0.050	ug/L	0.010
Endrin	ND	0.050	ug/L	0.017
Endrin aldehyde	ND	0.050	ug/L	0.010
Heptachlor	ND	0.050	ug/L	0.010
Heptachlor epoxide	ND	0.050	ug/L	0.017
Methoxychlor	ND	0.10	ug/L	0.010
Toxaphene	ND	2.0	ug/L	0.66
		RECOVERY		
SURROGATE	PERCENT RECOVERY	LIMITS		
Tetrachloro-m-xylene	99	(56 - 136)		
Decachlorobiphenyl	56 *	(74 - 127)		

**NOTE (S) :**

\* Surrogate recovery is outside stated control limits.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.



## METHOD BLANK REPORT

## GC Semivolatiles

Client Lot #....: SL1265  
 MB Lot-Sample #: F2D180000-122

Work Order #....: MR3TW1AA

Matrix.....: WATER

Analysis Date...: 04/23/12  
 Dilution Factor: 1

Prep Date.....: 04/18/12  
 Prep Batch #....: 2109122

PARAMETER	RESULT	REPORTING			METHOD
		LIMIT	UNITS		
Aldrin	ND	0.050	ug/L	SW846	8081A
alpha-BHC	ND	0.050	ug/L	SW846	8081A
beta-BHC	ND	0.050	ug/L	SW846	8081A
delta-BHC	ND	0.050	ug/L	SW846	8081A
gamma-BHC (Lindane)	ND	0.050	ug/L	SW846	8081A
Chlordane (technical)	ND	0.50	ug/L	SW846	8081A
4,4'-DDD	ND	0.050	ug/L	SW846	8081A
4,4'-DDE	ND	0.050	ug/L	SW846	8081A
4,4'-DDT	ND	0.050	ug/L	SW846	8081A
Dieldrin	ND	0.050	ug/L	SW846	8081A
Endosulfan I	ND	0.050	ug/L	SW846	8081A
Endosulfan II	ND	0.050	ug/L	SW846	8081A
Endosulfan sulfate	ND	0.050	ug/L	SW846	8081A
Endrin	ND	0.050	ug/L	SW846	8081A
Endrin aldehyde	ND	0.050	ug/L	SW846	8081A
Heptachlor	ND	0.050	ug/L	SW846	8081A
Heptachlor epoxide	ND	0.050	ug/L	SW846	8081A
Methoxychlor	ND	0.10	ug/L	SW846	8081A
Toxaphene	ND	2.0	ug/L	SW846	8081A

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Tetrachloro-m-xylene	92	(56 - 136)
Decachlorobiphenyl	82	(74 - 127)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC Semivolatiles

Client Lot #....: SL1265      Work Order #....: MR3TW1AC-LCS      Matrix.....: WATER  
 LCS Lot-Sample#: F2D180000-122      MR3TW1AD-LCSD  
 Prep Date.....: 04/18/12      Analysis Date...: 04/23/12  
 Prep Batch #....: 2109122  
 Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Aldrin	0.500	0.462	ug/L	92		SW846 8081A
	0.500	0.463	ug/L	93	0.21	SW846 8081A
alpha-BHC	0.500	0.488	ug/L	98		SW846 8081A
	0.500	0.488	ug/L	98	0.0	SW846 8081A
beta-BHC	0.500	0.456	ug/L	91		SW846 8081A
	0.500	0.459	ug/L	92	0.65	SW846 8081A
delta-BHC	0.500	0.780	ug/L	156		SW846 8081A
	0.500	0.791	ug/L	158	1.4	SW846 8081A
gamma-BHC (Lindane)	0.500	0.477	ug/L	95		SW846 8081A
	0.500	0.472	ug/L	94	1.0	SW846 8081A
4,4'-DDD	0.500	0.519	ug/L	104		SW846 8081A
	0.500	0.513	ug/L	103	1.2	SW846 8081A
4,4'-DDE	0.500	0.474	ug/L	95		SW846 8081A
	0.500	0.482	ug/L	96	1.7	SW846 8081A
4,4'-DDT	0.500	0.505	ug/L	101		SW846 8081A
	0.500	0.495	ug/L	99	2.0	SW846 8081A
Dieldrin	0.500	0.479	ug/L	96		SW846 8081A
	0.500	0.479	ug/L	96	0.0	SW846 8081A
Endosulfan I	0.500	0.389	ug/L	78		SW846 8081A
	0.500	0.388	ug/L	78	0.25	SW846 8081A
Endosulfan II	0.500	0.399	ug/L	80		SW846 8081A
	0.500	0.396	ug/L	79	0.75	SW846 8081A
Endosulfan sulfate	0.500	0.465	ug/L	93		SW846 8081A
	0.500	0.460	ug/L	92	1.1	SW846 8081A
Endrin	0.500	0.503	ug/L	101		SW846 8081A
	0.500	0.502	ug/L	100	0.19	SW846 8081A
Endrin aldehyde	0.500	0.507	ug/L	101		SW846 8081A
	0.500	0.499	ug/L	100	1.6	SW846 8081A
Heptachlor	0.500	0.523	ug/L	105		SW846 8081A
	0.500	0.501	ug/L	100	4.3	SW846 8081A
Heptachlor epoxide	0.500	0.472	ug/L	94		SW846 8081A
	0.500	0.473	ug/L	95	0.21	SW846 8081A
Methoxychlor	0.500	0.545	ug/L	109		SW846 8081A
	0.500	0.531	ug/L	106	2.6	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	92	(66 - 127)
	94	(66 - 127)
Decachlorobiphenyl	82	(76 - 120)
	81	(76 - 120)

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #....: SL1265      Work Order #....: MR3TW1AC-LCS      Matrix.....: WATER  
LCS Lot-Sample#: F2D180000-122      MR3TW1AD-LCSD

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

# PAHs

## CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KFF2

## HPLC

Lot-Sample #....: F2D170439-001    Work Order #....: MR2R61AD    Matrix.....: WATER  
 Date Sampled....: 04/13/12    Date Received...: 04/17/12  
 Prep Date.....: 04/18/12    Analysis Date...: 04/25/12  
 Prep Batch #....: 2109121  
 Dilution Factor: 1    Method.....: SW846 8310

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acenaphthene	ND	5.0	ug/L	0.65
<b>Acenaphthylene</b>	<b>9.6 S</b>	<b>5.0</b>	<b>ug/L</b>	<b>0.44</b>
<b>Anthracene</b>	<b>0.068 J,B,S</b>	<b>1.0</b>	<b>ug/L</b>	<b>0.020</b>
Benzo (a) anthracene	ND	1.0	ug/L	0.063
Benzo (b) fluoranthene	ND	1.0	ug/L	0.051
Benzo (k) fluoranthene	ND	1.0	ug/L	0.074
Benzo (ghi) perylene	ND	1.0	ug/L	0.16
Benzo (a) pyrene	ND	1.0	ug/L	0.075
Chrysene	ND	1.0	ug/L	0.035
Dibenz (a,h) anthracene	ND	1.0	ug/L	0.15
Fluoranthene	ND	1.0	ug/L	0.18
Fluorene	ND	1.0	ug/L	0.071
Indeno (1,2,3-cd) pyrene	ND	1.0	ug/L	0.14
Naphthalene	ND	5.0	ug/L	0.34
Phenanthrene	ND	1.0	ug/L	0.30
<b>Pyrene</b>	<b>0.56 J,S</b>	<b>1.0</b>	<b>ug/L</b>	<b>0.083</b>
		RECOVERY		
		LIMITS		
SURROGATE	PERCENT RECOVERY			
p-Terphenyl	84	(60 - 98 )		

**NOTE (S) :**

- S** Positive analyte detection appears questionable during spectral confirmation.  
**J** Estimated result. Result is less than RL.  
**B** Method blank contamination. The associated method blank contains the target analyte at a reportable level.



## METHOD BLANK REPORT

## HPLC

Client Lot #....: SL1265  
 MB Lot-Sample #: F2D180000-121

Work Order #....: MR3TV1AA

Matrix.....: WATER

Analysis Date...: 04/25/12  
 Dilution Factor: 1

Prep Date.....: 04/18/12

Prep Batch #....: 2109121

PARAMETER	RESULT	REPORTING		METHOD
		LIMIT	UNITS	
Acenaphthene	ND	5.0	ug/L	SW846 8310
Acenaphthylene	ND	5.0	ug/L	SW846 8310
<b>Anthracene</b>	<b>0.040 J</b>	<b>1.0</b>	<b>ug/L</b>	<b>SW846 8310</b>
Benzo (a) anthracene	ND	1.0	ug/L	SW846 8310
Benzo (b) fluoranthene	ND	1.0	ug/L	SW846 8310
Benzo (k) fluoranthene	ND	1.0	ug/L	SW846 8310
Benzo (ghi) perylene	ND	1.0	ug/L	SW846 8310
Benzo (a) pyrene	ND	1.0	ug/L	SW846 8310
Chrysene	ND	1.0	ug/L	SW846 8310
Dibenz (a,h) anthracene	ND	1.0	ug/L	SW846 8310
Fluoranthene	ND	1.0	ug/L	SW846 8310
Fluorene	ND	1.0	ug/L	SW846 8310
Indeno (1,2,3-cd) pyrene	ND	1.0	ug/L	SW846 8310
Naphthalene	ND	5.0	ug/L	SW846 8310
Phenanthrene	ND	1.0	ug/L	SW846 8310
Pyrene	ND	1.0	ug/L	SW846 8310
		PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS		
p-Terphenyl	90	(60 - 98)		

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

## LABORATORY CONTROL SAMPLE DATA REPORT

## HPLC

Client Lot #....: SL1265      Work Order #....: MR3TV1AC-LCS      Matrix.....: WATER  
 LCS Lot-Sample#: F2D180000-121      MR3TV1AD-LCSD  
 Prep Date.....: 04/18/12      Analysis Date...: 04/25/12  
 Prep Batch #....: 2109121  
 Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Acenaphthene	20.0	16.0	ug/L	80		SW846 8310
	20.0	18.2	ug/L	91	13	SW846 8310
Acenaphthylene	40.0	32.0	ug/L	80		SW846 8310
	40.0	35.8	ug/L	89	11	SW846 8310
Anthracene	2.00	1.71	ug/L	86		SW846 8310
	2.00	1.92	ug/L	96	11	SW846 8310
Benzo (a) anthracene	2.00	1.78	ug/L	89		SW846 8310
	2.00	1.90	ug/L	95	6.7	SW846 8310
Benzo (b) fluoranthene	4.00	3.61	ug/L	90		SW846 8310
	4.00	3.82	ug/L	95	5.6	SW846 8310
Benzo (k) fluoranthene	2.00	1.82	ug/L	91		SW846 8310
	2.00	1.93	ug/L	97	6.1	SW846 8310
Benzo (ghi) perylene	4.00	3.61	ug/L	90		SW846 8310
	4.00	3.83	ug/L	96	5.8	SW846 8310
Benzo (a) pyrene	2.00	1.80	ug/L	90		SW846 8310
	2.00	1.92	ug/L	96	6.4	SW846 8310
Chrysene	2.00	1.78	ug/L	89		SW846 8310
	2.00	1.89	ug/L	94	6.1	SW846 8310
Dibenz (a,h) anthracene	4.00	3.57	ug/L	89		SW846 8310
	4.00	3.81	ug/L	95	6.6	SW846 8310
Fluoranthene	4.00	3.61	ug/L	90		SW846 8310
	4.00	3.94	ug/L	98	8.7	SW846 8310
Fluorene	4.00	3.29	ug/L	82		SW846 8310
	4.00	3.71	ug/L	93	12	SW846 8310
Indeno (1,2,3-cd) pyrene	2.00	1.82	ug/L	91		SW846 8310
	2.00	1.96	ug/L	98	7.5	SW846 8310
Naphthalene	20.0	15.8	ug/L	79		SW846 8310
	20.0	17.8	ug/L	89	12	SW846 8310
Phenanthrene	2.00	1.72	ug/L	86		SW846 8310
	2.00	1.92	ug/L	96	11	SW846 8310
Pyrene	2.00	1.78	ug/L	89		SW846 8310
	2.00	1.94	ug/L	97	8.6	SW846 8310

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
p-Terphenyl	85	(56 - 108)
	86	(56 - 108)

## NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

# WET CHEMISTRY

APRIL 30, 2012

TestAmerica - St. Louis

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KFW5

General Chemistry

Lot-Sample #....: F2D120462-001

Work Order #....: MR0FX

Matrix.....: WATER

Date Sampled...: 04/10/12

Date Received...: 04/12/12

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Sulfide	ND	1.0	mg/L	SW846 9030	04/17/12	2108057
Dilution Factor: 1				MDL.....: 0.083		

APRIL 30, 2012

TestAmerica - St. Louis

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KFW6

General Chemistry

Lot-Sample #....: F2D120462-002

Work Order #....: MR0F1

Matrix.....: WATER

Date Sampled...: 04/10/12

Date Received...: 04/12/12

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Sulfide	ND	1.0	mg/L	SW846 9030	04/17/12	2108057
Dilution Factor: 1				MDL.....: 0.083		



APRIL 30, 2012

TestAmerica - St. Louis

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2KFX5

General Chemistry

Lot-Sample #....: F2D130430-001

Work Order #....: MR07H

Matrix.....: WATER

Date Sampled...: 04/11/12

Date Received...: 04/13/12

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Sulfide	ND	1.0	mg/L	SW846 9030	04/17/12	2108057
Dilution Factor: 1				MDL.....: 0.083		

## METHOD BLANK REPORT

## General Chemistry

Client Lot #....: SL1265

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Sulfide	ND	Work Order #: MR2FW1AA 1.0	mg/L	MB Lot-Sample #: SW846 9030	F2D170000-057 04/17/12	2108057
		Dilution Factor: 1				

**NOTE (S) :**

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Calculations are performed before rounding to avoid round-off errors in calculated results.

## LABORATORY CONTROL SAMPLE DATA REPORT

## General Chemistry

Client Lot #...: SL1265

Matrix.....: WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Sulfide	10.0	9.40	mg/L	94	SW846 9030	04/17/12	2108057

Work Order #: MR2FW1AC LCS Lot-Sample#: F2D170000-057  
Dilution Factor: 1

**NOTE (S) :**

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Calculations are performed before rounding to avoid round-off errors in calculated results.

## MATRIX SPIKE SAMPLE DATA REPORT

## General Chemistry

Client Lot #....: SL1265

Matrix.....: WATER

Date Sampled...: 04/10/12

Date Received...: 04/12/12

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Sulfide	ND	10.0	9.20	mg/L	92	SW846 9030	04/17/12	2108057
Work Order #....: MR0FX1AG MS Lot-Sample #: F2D120462-001								
Dilution Factor: 1								

**NOTE (S) :**

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Calculations are performed before rounding to avoid round-off errors in calculated results.

## SAMPLE DUPLICATE EVALUATION REPORT

## General Chemistry

Client Lot #....: F2D120462

Work Order #....: MR0FX-SMP  
MR0FX-DUP

Matrix.....: WATER

Date Sampled....: 04/10/12

Date Received...: 04/12/12

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Sulfide	ND	ND	mg/L	0	(0-20)	SD Lot-Sample #: F2D120462-001 SW846 9030	04/17/12	2108057

Dilution Factor: 1